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## Oil and Gas Industry Overview 2018

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# Working responsibly to create value

Cairn Energy PLC Annual Report and Accounts 2018



An aerial photograph of a coastal town, likely Cairn, showing a sandy beach, several buildings, and a prominent cliff face on the right side. The image is overlaid with a semi-transparent brown filter.

Cairn is committed to **working responsibly** as part of our strategy to **deliver value** for all stakeholders. This means working in a **safe, secure, environmentally and socially responsible** manner.

Our Focus in 2018



Exploration

4 wells completed in 2018, including first operated exploration well in the UK, resulting in one oil discovery. New exploration interests acquired in Suriname, Côte d'Ivoire, Mauritania, Mexico, the UK and Norway providing near term drilling from 2019.

30 Read more: **Operational Review** on P30



Development

Progressed Senegal SNE\* and Norway Nova development projects; first oil targeted in 2022 and 2021 respectively.

\* Although Senegal is classified as an exploration/appraisal asset in the Financial Statements of this Report and Accounts pending approval of the Development and Exploitation plan, the majority of the work being undertaken is focused on development planning. As such, Senegal is referred to throughout the Strategic Report as being in the development planning stage.

29 Read more: **Operational Review** on P29



Production

Our UK North Sea production assets, Catcher and Kraken, produced 17,533boepd and generated US\$395.7m in oil and gas sales revenue in 2018.

28 Read more: **Operational Review** on P28

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discover more at  
**cairnenergy.com/ar2018**



## At a Glance

Cairn Energy PLC is an independent, UK based oil and gas exploration, development and production company. Cairn has explored, discovered, developed and produced oil and gas in a variety of locations throughout the world and has extensive experience as operator and partner in all stages of the oil and gas lifecycle.

### Our portfolio

We hold interests in eight countries across the UK & Norway, Republic of Ireland, West Africa and Latin American regions.

Our headquarters are in Edinburgh, Scotland supported by operational offices in London, Norway, Senegal and Mexico.



## What Makes Us Different

### Our experience

Cairn has explored, discovered, developed and produced oil and gas in a variety of locations throughout the world with more than 30 years' experience as an operator and partner in all stages of the oil and gas life cycle.

We have a track record of safe and effective operations and extensive experience operating both onshore and offshore, in shallow and deep water locations, in remote and frontier locations and in benign and harsh weather environments.

### Our approach

Our approach is governed by our commitment to working responsibly in all of our activities. Our culture is based on our longstanding core values, known as the 3Rs which stand for: building Respect, nurturing Relationships and acting Responsibly.

Cairn is a focused and dynamic operator, bringing pace to safe and efficient operations whilst delivering lasting social and economic benefits to the countries in which we invest.

We operate to industry leading standards in health, safety and environmental management and corporate social responsibility matters.

### Our expertise

We pride ourselves on seeing value where others might not and on being the right size of organisation to move quickly and responsibly to pursue this value. Our exploration activity is principally in frontier and emerging basins where the greatest potential value exists.

Our industry experience has included opening numerous oil basins and creating value through exploration success and commercialising resources across South Asia and most recently in West Africa.

Cairn created transformational growth and significant value through the discovery in 2004, and subsequent development and production, of hydrocarbons in Rajasthan, India.

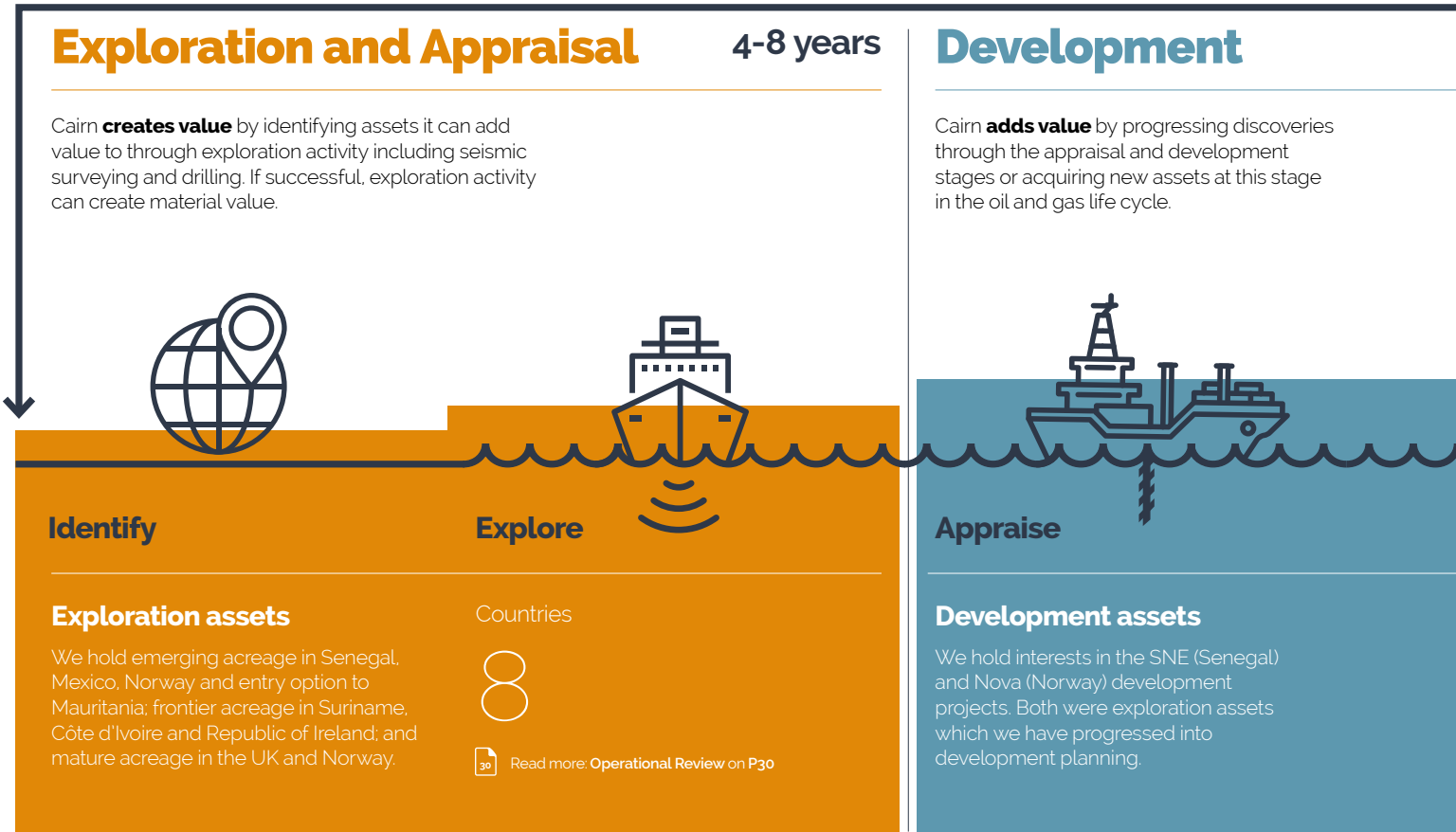
More recently Cairn drilled the first ever deepwater wells offshore Senegal which resulted in two basin opening discoveries, one of which was the largest global oil discovery of 2014.





Business Model

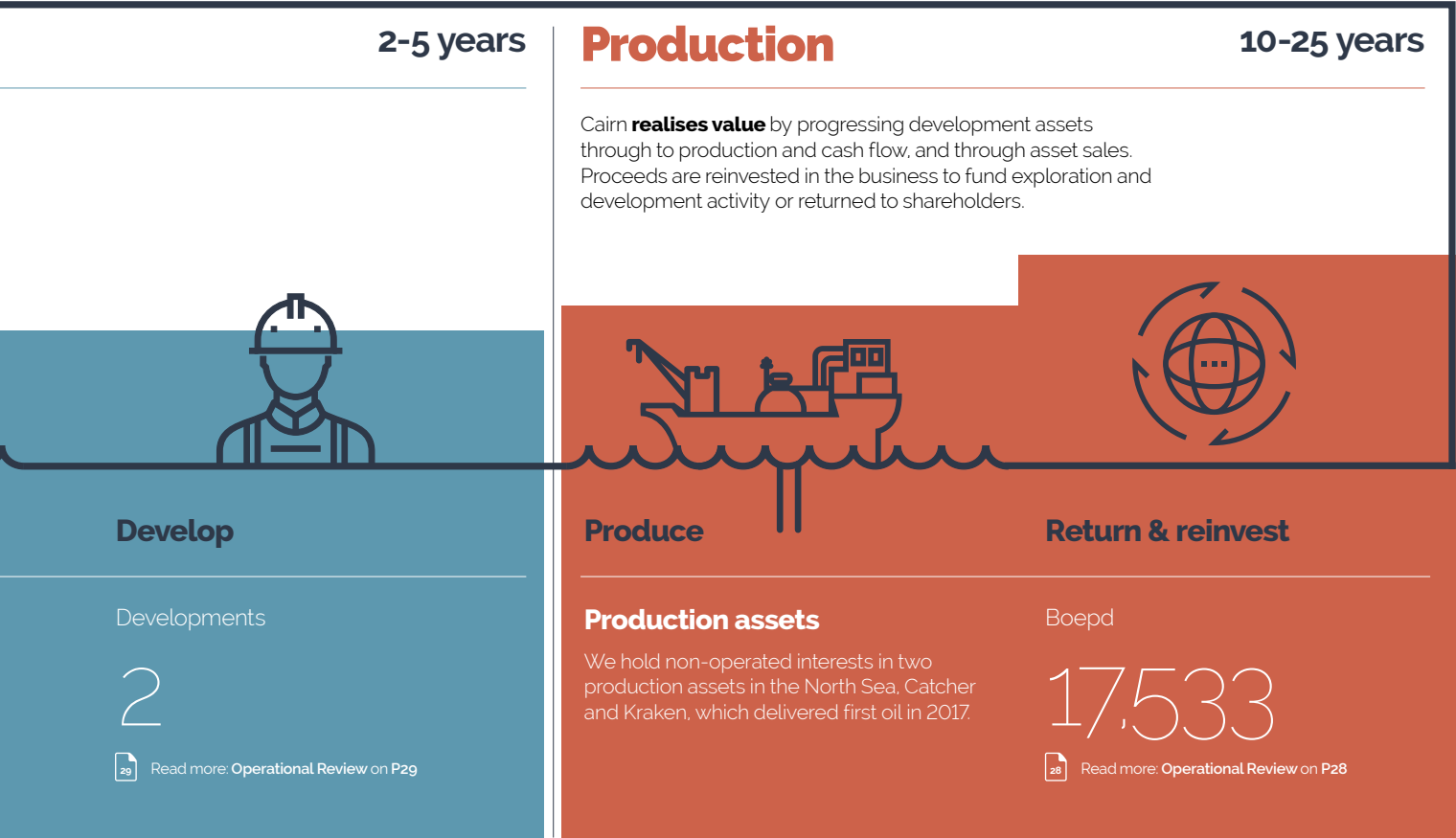
Cairn's business model is to create, add and realise value for stakeholders through the exploration, development and production of oil and gas within a self-funding business model. The cash flow from production assets funds exploration, appraisal and development activity.



Strategy

Our strategy is to deliver value for stakeholders from a balanced portfolio of exploration, development and production assets. We set strategic objectives annually which enable us to monitor delivery of this strategy. To measure delivery, our Board sets Key Performance Indicators.


 Read more: **Strategy and Key Performance Indicators** on P6



#3 **Acreage** to explore, develop and produce

 Read more: **Operational Review** on P26

#4 **Our know how:** our collective expertise and processes

 Read more: **At a Glance** on P2

#5 **Our relationships** with stakeholders including governments, partners and communities

 Read more: **Working Responsibly with Our Stakeholders** on P14

Oil and gas sales revenue

US\$395.7m

 Read more: **Financial Review** on P41

Employee salaries and benefits

US\$38.1m

 Read more: **Working Responsibly** on P46

Return to shareholders (2007-2012)

US\$4.5bn

 Read more at [www.cairnenergy.com/investors/](http://www.cairnenergy.com/investors/)



## Strategy and Key Performance Indicators

We set strategic objectives annually which monitor delivery of strategy and which are measured by Key Performance Indicators (KPIs) set by the Board. Our risk management process identifies the principal risks to the delivery of our strategic objectives. Working responsibly is a key part of our business model and our KPIs directly measure our ability to work responsibly.

### Strategic objective: Deliver exploration success

Grow the reserves and resources base to provide a basis for future growth


2018 KPI	Measurement	2018 Performance
<ul style="list-style-type: none"> <li>– Mature prospects to drill ready status.</li> <li>– Secure funds and JV support for drilling.</li> <li>– Execute exploration drilling, to deliver potentially commercial volumes to add to our Group Reserves and Resources (2P and 2C).</li> </ul>	<ul style="list-style-type: none"> <li>– Mature six or more prospects with all internal reviews completed.</li> <li>– Drill four or more exploration wells before year end 2018.</li> <li>– Efficiently discover commercial quantities of hydrocarbons in line with pre-drill estimates at an attractive Group finding efficiency rate including estimated subsequent appraisal requirements.</li> </ul>	<ul style="list-style-type: none"> <li>– Prospects successfully matured, assured and recommended during 2018 for drilling in 2018 or 2019 including two prospects in Block 9, Mexico; one prospect in Block 7, Mexico; the Agar-Plantain prospect in the UK (drilled 2018); the Chimera prospect in the UK; and the Godalen prospect in Norway.</li> <li>– Wells on Ekland and Agar-Plantain, each in the UK, were drilled in 2018 with an oil discovery made on Agar-Plantain. 2C volumes discovered were lower than pre-drill estimates.</li> </ul>

 Read more: **Operational Review on P18**

### Strategic objective: Mature developments

Progress Senegal and Nova development projects

2018 KPI	Measurement	2018 Performance
<ul style="list-style-type: none"> <li>– Mature the Senegal SNE development and funding plans for presentation to the Government of Senegal.</li> <li>– Mature the Nova development project in Norway to Final Investment Decision.</li> </ul>	<ul style="list-style-type: none"> <li>– Timely submission of the SNE Area Evaluation Report, Exploitation Plan and associated Environmental and Social Impact Assessment.</li> <li>– Approval of the SNE Exploitation Plan and associated Exploitation Area by the end of the production sharing contract (PSC) term and finalisation and approval of joint venture financing plan.</li> <li>– Submission of the Nova Plan of Development to Norwegian authorities in H1 2018 and all internal approvals in place to complete a Final Investment Decision and approve the operator entering into acceptable contractual commitments on behalf of the joint venture during 2018.</li> </ul>	<ul style="list-style-type: none"> <li>– The SNE Area Evaluation Report was submitted to the Ministry of Energy in July 2018.</li> <li>– The SNE Field Development Phase 1 environmental and social impact assessment was submitted to the authorities in June 2018 and approved in January 2019.</li> <li>– The SNE Exploitation Plan was submitted to the authorities in October 2018 and is technically approved, subject to finalisation of the front end engineering design. The joint venture financing plan is underway and expected to be concluded during 2019.</li> <li>– The Final Investment Decision was taken on the Nova development in H1 2018 and the Plan of Development submitted to the Norwegian authorities also in H1 2018.</li> </ul>


 Read more: **Operational Review on P18**

### Strategic objective: Portfolio management

Portfolio optimisation and replenishment

2018 KPI	Measurement	2018 Performance
<ul style="list-style-type: none"> <li>– Secure two or more new exploration opportunities that enhance our portfolio, meet corporate hurdles and offer exploration drilling in the near to medium term.</li> </ul>	<ul style="list-style-type: none"> <li>– Each new exploration opportunity secured will be measured against tests of:             <ul style="list-style-type: none"> <li>– (i) control;</li> <li>– (ii) commercial robustness based on success case Pmean economics; and</li> <li>– (iii) materiality based on documented NPV10 thresholds.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– Awarded five licences in the UK 30<sup>th</sup> Offshore Exploration Licence Round, operating two of the awards.</li> <li>– Completed one farm-in in the UK with the option to operate.</li> <li>– Secured one block in the Mexico Licence Round 3.1, as operator.</li> <li>– Secured one block offshore Suriname, as operator.</li> </ul>

 Read more: **Operational Review on P18**

	Weighting (as % of allocated proportion of maximum opportunity)	Bonus awarded	KPI Remuneration Committee decision	2019 KPI	Key risks to the delivery of this objective
	25%	11.5%	Partially achieved	<ul style="list-style-type: none"><li>– Successfully drill and evaluate a programme of six exploration wells across our portfolio.</li><li>– Discover potentially commercial hydrocarbons in line with pre-drill expectations.</li><li>– Mature up to six new independent exploration prospects with JV support for drilling in the period 2020-2021.</li></ul>	<ul style="list-style-type: none"><li>– Lack of exploration success.</li></ul> <div> Read more: <b>How we Manage Risk</b> on P32</div>

	Weighting (as % of allocated proportion of maximum opportunity)	Bonus awarded	KPI Remuneration Committee decision	2019 KPI	Key risks to the delivery of this objective
	17%	13%	Substantially achieved	<ul style="list-style-type: none"><li>– Mature the SNE field development project in Senegal to Final Investment Decision.</li><li>– Progress the Nova development project against key predefined project milestones.</li></ul>	<ul style="list-style-type: none"><li>– Delay in Senegal development plan.</li><li>– Reliance on JV operators for asset performance.</li></ul> <div> Read more: <b>How we Manage Risk</b> on P32</div>


	Weighting (as % of allocated proportion of maximum opportunity)	Bonus awarded	KPI Remuneration Committee decision	2019 KPI	Key risks to the delivery of this objective
	10%	10%	Fully achieved	<ul style="list-style-type: none"><li>– Secure two new venture opportunities that meet corporate hurdles and have risk levels consistent with our Risk Appetite Statement. Measured against tests of control, materiality and commercial robustness.</li></ul>	<ul style="list-style-type: none"><li>– Securing new venture opportunities.</li></ul> <div> Read more: <b>How we Manage Risk</b> on P32</div>



## Strategy and Key Performance Indicators continued

### Strategic objective: Maintain licence to operate

Deliver value in a safe, secure and environmentally and socially responsible manner

2018 KPI	Measurement	2018 Performance	
<ul style="list-style-type: none"> <li>– Demonstrate clear progress and achieve defined milestones in relation to health, safety, security, environment (HSSE)/corporate responsibility (CR) objectives, split into four key categories: Society and Communities; People; the Environment; and Business Relationships.</li> <li>– Achieve lagging HSSE indicators set in line with the International Association of Oil and Gas Producers (IOGP) targets and guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>– Achievements of leading indicators linked to the four key categories listed.</li> <li>– Lagging indicators set in line with IOGP targets and guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>– Good progress against leading indicators – There were zero lost time injuries, recordable injuries or spills across Cairn operations.</li> <li>– Good progress made against leading indicators, including: <ul style="list-style-type: none"> <li>– Inductions on the Code of Ethics completed by all new staff;</li> <li>– Anti-bribery and corruption assessment completed for all new assets;</li> <li>– Inclusion of Modern Slavery Act conditions in all relevant contracts and issue of the first Cairn Modern Slavery Act statement;</li> <li>– Outperformed our training plan for Crisis and Emergency Response Team training in preparedness for the UK operated well; and</li> <li>– Health and well-being, talent management and management development programmes all successfully developed and launched.</li> </ul> </li> </ul>	
		 Read more: <b>Working Responsibly</b> on P46	

### Strategic objective: Deliver operational excellence

Maximise revenues through efficient operations

2018 KPI	Measurement	2018 Performance	
<ul style="list-style-type: none"> <li>– Deliver target production volumes, operating costs and crude values from Kraken and Catcher at pre-determined levels.</li> </ul>	<ul style="list-style-type: none"> <li>– Measured against target net oil production volumes, operating costs per bbl targets, average crude realisation relative to Brent targets and 1P/2P targets.</li> </ul>	<ul style="list-style-type: none"> <li>– Catcher – Target net oil production volumes were exceeded, at better than target operating costs and realised at a price within the expected target. Reserves at Catcher have been marginally upgraded.</li> <li>– Kraken – 2018 KPI target production volumes and operating costs were not met in 2018 but the price realised for the crude was better than target. Reserves at Kraken have been downgraded.</li> </ul>	
		 Read more: <b>Operational Review</b> on P18	

### Strategic objective: Deliver a sustainable business

Manage balance sheet strength

2018 KPI	Measurement	2018 Performance	
<ul style="list-style-type: none"> <li>– Develop and implement a funding strategy that ensures that an executable funding plan is developed and that a minimum headroom cushion from existing sources of funding is maintained.</li> <li>– Success in the action under the UK – India bilateral treaty arbitration.</li> </ul>	<ul style="list-style-type: none"> <li>– Funding strategy implementation measured against four funding strategy criteria being met throughout the year.</li> <li>– Measured against positive progress achieved in the UK-India bilateral treaty arbitration and a successful award.</li> </ul>	<ul style="list-style-type: none"> <li>– Funding headroom was maintained throughout the year covering the Group's committed forward capital expenditure.</li> <li>– Debt covenants were maintained with surplus in each quarter.</li> <li>– Liquidity was increased during the year to add material new exploration commitments in Mexico Suriname and UK/Norway.</li> <li>– All arbitration hearings have taken place. Whilst the award has not yet been made, recognition had been given for the progress made in the process and for the significant strategic planning that had been carried out for the result.</li> </ul>	
		 Read more: <b>Financial Review</b> on P41	

	Weighting	Bonus awarded	KPI Remuneration Committee decision	2019 KPI	Key risks to the delivery of this objective
	(as % of allocated proportion of maximum opportunity)				
	15%	13.5%	Substantially achieved	<ul style="list-style-type: none"><li>- Demonstrate clear progress and achieve defined milestones in relation to HSSE/ CR objectives, split into four key categories (Governance, Society, People and the Environment).</li><li>- Achieve lagging HSSE indicators set in line with IOGP targets.</li></ul>	<ul style="list-style-type: none"><li>- Health, safety, environment and security.</li><li>- Fraud, bribery and corruption.</li><li>- Reliance on JV operators for asset performance.</li></ul>
<div><div></div>Read more: <b>How we Manage Risk</b> on P32</div>					

	Weighting	Bonus awarded	KPI Remuneration Committee decision	2019 KPI	Key risks to the delivery of this objective
	(as % of allocated proportion of maximum opportunity)				
	15%	8.5%	Partially achieved	<ul style="list-style-type: none"><li>- Ensure production and operating cash flow from Kraken and Catcher are at or within guidance on net production volume and lifting cost per barrel.</li></ul>	<ul style="list-style-type: none"><li>- Kraken and Catcher operational and project performance.</li><li>- Reliance on JV operators for asset performance.</li></ul>
<div><div></div>Read more: <b>How we Manage Risk</b> on P32</div>					

	Weighting	Bonus awarded	KPI Remuneration Committee decision	2019 KPI	Key risks to the delivery of this objective
	(as % of allocated proportion of maximum opportunity)				
	18%	13.5%	Substantially achieved	<ul style="list-style-type: none"><li>- Implement funding strategy to support exploration, appraisal and development activity and to mitigate any downside revenue scenarios.</li><li>- Progress the UK-India bilateral treaty arbitration to conclusion and receipt of awarded sums in event of success.</li></ul>	<ul style="list-style-type: none"><li>- Volatile oil and gas prices.</li><li>- Political and fiscal uncertainties.</li><li>- Access to debt markets.</li><li>- Inability to secure or repatriate value from Indian assets.</li></ul>
<div><div></div>Read more: <b>How we Manage Risk</b> on P32</div>					



**CEO's Review**

Simon Thomson,  
Chief Executive Officer

A large, sepia-toned photograph of Simon Thomson, the CEO of Cairn Energy, occupies the background of the page. He is shown from the chest up, turned slightly to his right, looking off-camera with a focused expression. His hands are raised in a gesturing motion, with fingers spread. He is wearing a dark, textured suit jacket over a light-colored shirt and a dark tie. The lighting is soft, highlighting his features and the texture of his clothing.

# Building a **balanced business** for the long term

Cairn today embodies the vision we set out for the company five years ago. In 2013 we stated that we would "re-gear the capital base to exploration success, access future cash flow to fund exploration programmes and hold appropriate equity interests in operated, frontier exploration." Today, this is what we have achieved.

We enter 2019 with a balanced portfolio of exploration, development and production assets, both operated and non-operated, at appropriate levels of equity exposure. Our frontier exploration position in Senegal, acquired in 2013, has yielded material exploration success and our production assets in the North Sea, acquired in 2012, are now providing cashflow to support future exploration, appraisal and development. We continue to feed our pipeline of exploration assets, acquiring exploration acreage in a number of new countries during 2018.

**Creating value**

Our strategy continues to be to deliver value for stakeholders by exploring, developing and producing hydrocarbons, helping countries to develop their own resources for economic benefit and energy security.

In Senegal, we believe transformational potential can be achieved through the development of our significant hydrocarbon discoveries. With more than US\$1 billion invested to date through the joint venture's activities, we believe that the development and production of hydrocarbons will continue to deliver significant social and economic benefits for the country and people of Senegal. The SNE project will deliver oil production and subsequently domestic gas supply, ultimately creating significant local employment opportunities, both direct and indirect.

**Looking to the future**

We recognise that the world is facing challenges associated with climate change and we acknowledge that the associated two-degree climate target scenario will require significant growth in renewable energy sources. However, oil and gas will continue to be society's primary energy source and meet a growing demand for many years to come and we believe we have a role to play in helping to meet that demand. We will continue to work to better understand and respond to the climate change associated challenges facing the industry. We will continue to work to global standards and reaffirm our commitment to the United Nations Global Compact, a voluntary initiative based on CEO commitments to implement universal sustainability principles in support of UN goals.

**Board changes**

Jackie Sheppard retired as a non-executive director of the Company at the year-end having served on the Board since 2010. Alexander Berger, non-executive director, has served on the Board for nine years and has advised the Company that he will not be seeking re-election at the Annual General Meeting in May 2019. He will therefore retire from the Company on that day.

Cairn would like to thank both Jackie and Alexander for their excellent contributions to the Board during their years of service to Cairn. The Company is currently engaged in a recruitment process to appoint two non-executive directors, at least one of whom will be female.

**Outlook**

Cairn looks forward to a number of potentially material near-term exploration drilling opportunities, supported by established cashflows from producing assets and sustained by assets entering the development phase. The Company is fully funded for all committed expenditure, and continues its focus on delivering value for its stakeholders within the constant of a responsible and safety focused strategic offering.



Senegal shore base team



Dakar, Senegal



## Chairman's Statement

Ian Tyler, Chairman

# Our culture is based around **working responsibly**

Cairn is an experienced oil and gas operator and has successfully discovered and developed reserves in a variety of international locations in partnership with host governments. The business is supported by strong, long term financial investors ensuring it is funded for strategic delivery and future growth.



Read more: [Strategy and Key Performance Indicators](#) on P6



We maintain a strong balance sheet and have funding flexibility which allows us to deliver our immediate programmes as well as actively assess new ventures and portfolio additions. Our exploration activity is principally in frontier and emerging basins where the greatest potential value exists, whilst our production assets, located in mature basins, provide the cash flow to sustain exploration and development activity.

Cairn has an established, highly experienced and respected leadership team which is committed to working responsibly in our pursuit of strategy. This means working in a safe, secure, environmentally and socially responsible manner. We ensure that we measure our ability to work responsibly through our Key Performance Indicators (KPI).

The Board has ultimate responsibility for ensuring this culture of working responsibly exists within the organisation. We have three levels of assurance within the organisation:

- Our values, policies and principles and our business system procedures and standards with which all employees are required to comply;
- Internal oversight of their application by key committees including our Senior Leadership Team which includes our Chief Executive, Chief Financial Officer and Chief Operating Officer; and
- Internal and external assurance audits and opinions.

**Our core values, known as the 3Rs, set the tone**

**Building Respect**

**Nurturing Relationships**

**Acting Responsibly**

They are underpinned by our Business Principles, our Code of Business Ethics and a number of Corporate Responsibility policies.

The Code of Ethics identifies the standards of business ethics and conduct which we expect and our Business Principles identify the behaviours we expect to achieve these standards. The Code of Ethics must be

applied not only by employees but by all other parties that work on the Company's behalf including contractors, suppliers and partners. They are integrated into our systems and processes of which the key ones include the Corporate Responsibility Management System (CRMS), the Cairn Operating Standards, the Group Risk Management Procedure and the Internal Control and Assurance Framework.

Our CRMS embodies our approach to working responsibly and interprets our policies and principles. It instructs our people in their decisions and the operations they manage and is mandatory throughout the business.

**Working to global standards**

Cairn upholds and support the 10 principles of the United Nations Global Compact, an initiative for businesses committed to aligning their strategies with universally accepted principles in human rights, labour, environment and anti-corruption. In 2018 we published our first Modern Slavery Statement in accordance with the 2015 UK Modern Slavery Act.

In 2015 the United Nations published the UN Sustainable Development Goals (SDGs). These goals have provided not only our industry but the wider business community with a definitive framework for more effectively assessing the impact and value of our activities within a bigger picture of local, regional, national and potentially global sustainable development. We now assess our business for contributions we can make to the UN SDGs to help minimise our impacts and maximise the benefits of our activities for countries in which we work.

During the year we were delighted to participate in the UNGC UK Network SDG roadshow in Edinburgh, presenting our experience on working responsibly.

We are committed to working to International Finance Corporation (IFC) Performance Standards on Social and Environmental Sustainability, which are in line with the UN Global Compact principles.

Since 2012 we have also been a participating company in the Extractive Industries Transparency Initiative (EITI) which is a coalition of governments, companies and civil society that have adopted a joint approach to applying the EITI global standard, promoting transparency of payments in the oil, gas and mining sectors.

**Our people uphold our culture**

At the heart of our culture and business are our people. They are our most important asset. It is their skills and experience and collective expertise which enable us to create value. The behaviours that define the way in which we work are based on the 3Rs and are known as our **High Performing Behaviours**.

**Be Safe**

**Be Entrepreneurial**

**Be Focused**

**Be a Leader**

**Be Collaborative**

**Be Open**

**Be Empowered**

 Read more: Our People: Driving Value on P62

## Working Responsibly with Our Stakeholders

Our commitment to working responsibly and our ability to execute our strategy depend on understanding who our stakeholders are and engaging effectively with them.

Engaging with our stakeholders is something that forms part of our day-to-day activities. It is a part of how we all do our jobs. We have defined criteria to identify our stakeholders which follow the principles of internationally recognised standards.

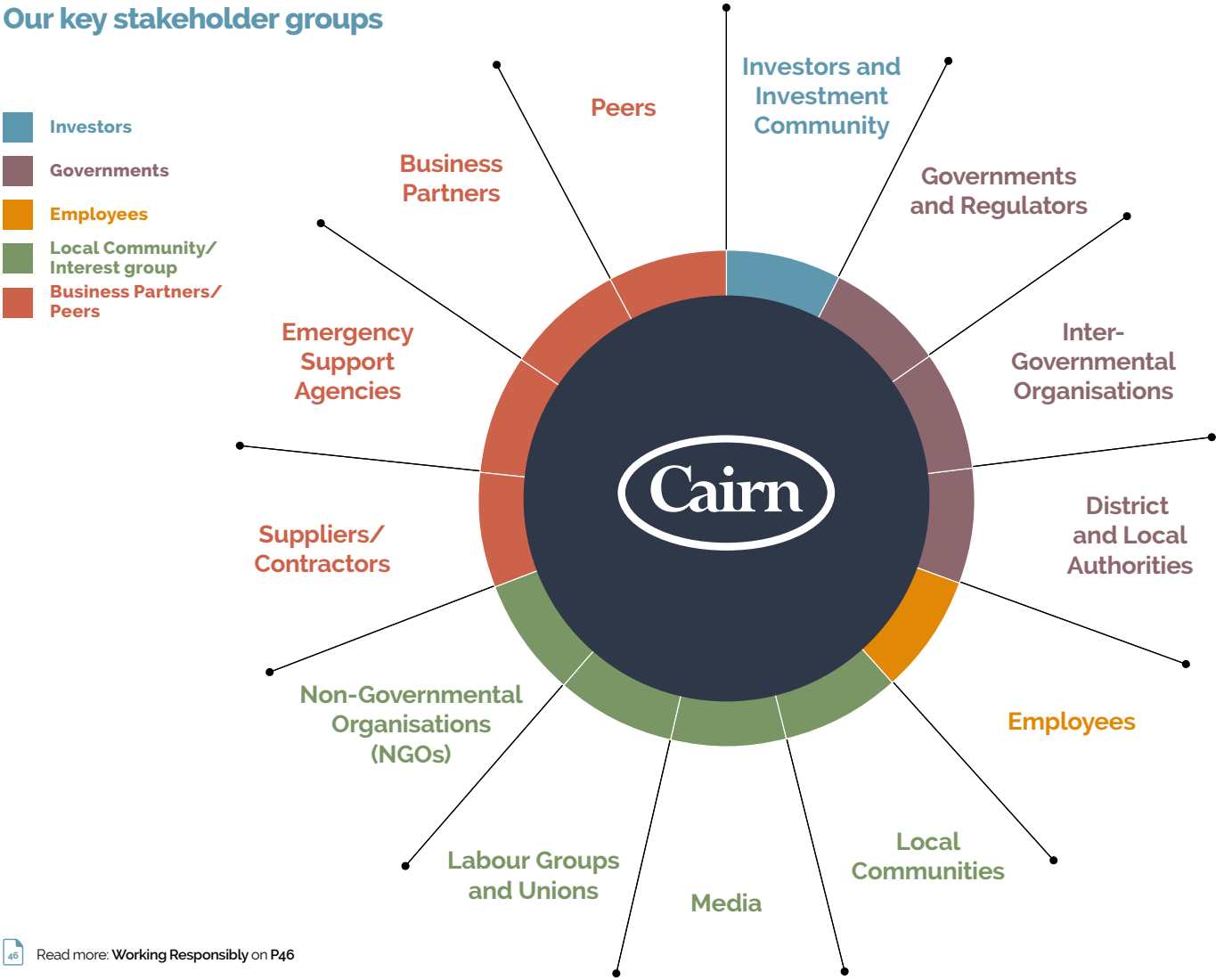
We have well structured stakeholder engagement procedures in place at a corporate and project level which enable us to identify and assess issues amongst our stakeholders and then address and respond to them. We do this through tailored engagement with specific stakeholders, disclosure of information and monitoring of stakeholder opinions and actions. We also draw on the knowledge of our local staff, our corporate staff, external agencies, partners and consultants. Stakeholder project

engagement plans are bespoke and regularly updated to reflect changing stakeholders and their concerns as projects evolve.

- During the year some of our key stakeholder engagement activities included:
- Presenting to analysts, investors and shareholders at regular investor roadshows, half year and full year analyst briefings, the Annual General Meeting and industry conferences.
  - Participating with peers at industry events
  - Safety briefings for employees and contractors.
  - Public and statutory consultations regarding proposed operational activities.
  - Working with community partners to develop local impact benefit plans.

We also respond directly to concerned individuals and organisations on specific issues. In 2018, the wide variety of topics raised included our company strategy and financial position, and our approach to and performance across corporate responsibility issues including climate change. Most of these topics were dealt with during shareholder meetings held regularly throughout the year and individual meetings elsewhere in line with our approach to respond to enquiries in a timely and appropriate manner. For more information please see our Corporate Responsibility Report. [www.cairnenergy.com/working-responsibly](http://www.cairnenergy.com/working-responsibly)

### Our key stakeholder groups



Read more: **Working Responsibly** on P46

<sup>1</sup> AccountAbility's AA1000 Accountability Principles Standard (AA1000 APS).



Case study

# Working with joint venture partners, Transfer of Operatorship in Senegal

Our absolute priority in the transfer of operatorship to our joint venture partner Woodside has been on ensuring continuity of, and for, our many different stakeholders in country who are a critical part and indeed beneficiaries of the Senegal SNE development project.

Cairn and Woodside share the same fundamental commitment to international good practice and as such our approach to ensuring this project continues to be managed in a responsible and respectful manner is shared.

In practice that has meant ensuring that Woodside has all the information it needs to take over as operator and build on the four years of operations that Cairn has delivered to date. This has involved a high level of stakeholder engagement, not only between Cairn and Woodside, but also with the Senegalese Government and regulators, communities and our employees and contractors in country. Communicating the change in operatorship in advance and as clearly as possible to all those who might be affected has been paramount.

In effecting the actual transfer, we assigned one focal person in each organisation responsible for managing the process and five key work streams covering all aspects of our operations

in country from security, to data, to compliance, to finance and corporate responsibility.

The continuity of our approach to social investment to date has also been of great importance to us. We are delighted that as part of this process one of our key employees who has been instrumental in setting up and managing our key social

investment programmes, has transferred to Woodside in a similar capacity. We look forward to continuing to work as collaboratively as we have done to date in our new role on the project as non-operator.

**Charlie Youngs**  
Pre-development Integration  
Manager for Senegal



Cairn and Woodside at launch of Senegal's Institut National du Petrole et du Gaz.



## Industry Overview

This industry overview provides an independent view of the industry context in which Cairn operates.

### About the authors:

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Heriot-Watt University is one of the UK's leading universities for business and industry and has a reputation for innovative education, enterprise, and leading-edge research. Energy research is a core activity within Heriot-Watt University, and the Centre for Energy Economics Research and Policy (CEERP) is the latest evidence of the University's commitment to research in energy, economics, and policy. CEERP is based within the Institute of Petroleum Engineering at Heriot-Watt University, but forms a key point of support and collaboration among the University's Schools with affiliates from the School of Energy, Geoscience, Infrastructure, and Society; School of Social Sciences; and the Energy Academy as well as honorary academics outwith the University.

1 U.S. Energy Information Administration ([www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=E\\_ERTRRO\\_XRO\\_NUS\\_C&f=M](http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=E_ERTRRO_XRO_NUS_C&f=M)).

2 According to OGA ([www.ogauthority.co.uk/data-centre/data-downloads-and-publications/well-data/](http://www.ogauthority.co.uk/data-centre/data-downloads-and-publications/well-data/)). Rystad's press release ([www.rystadenergy.com/newsevents/news/press-releases/fs-less-appetite-for-exploration-drilling/](http://www.rystadenergy.com/newsevents/news/press-releases/fs-less-appetite-for-exploration-drilling/)) shows that this is happening on a global scale, hence the imminent supply gap as discussed above.

3 September 2018 Update of Oil and Gas Authority (OGA) Projections of UK Oil and Gas Production and Expenditure.

4 [www.woodmac.com/news/opinion/north-sea-exploration-is-making-a-comeback-in-2019/](http://www.woodmac.com/news/opinion/north-sea-exploration-is-making-a-comeback-in-2019/)

5 Among these are Azinor Catalyst, Chrysaor, Neptune Energy, Siccar Point, Vår Energy, Verus Petroleum, Wellesley Petroleum and Zennor Petroleum.

## 1 Energy trends

**With many world economies returning to growth after the economic downturn, overall global energy demand is expected to rise.**

There is consensus among many organisations, including the International Energy Agency, that world energy demand will increase by around a quarter by 2040. The extent and composition of this growth is uncertain, with unknown technical progress and government policies on climate change influencing the market supply and demand for different fuels. On the supply side, at the current discovery rate, there is little doubt that we will experience a supply gap in the future. Although opinions vary on how soon the gap will emerge and how large it will be, most sources agree that a shortage is on the horizon with an upward pressure on prices. The underlying reason is straightforward: not enough is being spent on exploration.

In the nearer term, the main drivers will continue to be rising US production, sanctions on Iran, OPEC's behaviour, and Venezuela's current political and economic crisis. Oil production in the US has continued its upward trend throughout 2018, driven mostly by growing tight oil production. Rig numbers were up by 20% last year compared to 2017<sup>1</sup>, which signals further increases in output as we head into 2019. In December 2018, OPEC agreed to reduce output by 800,000 barrels per day for six months from January 2019, reinforced by OPEC Plus members, including Russia, committing to cut production by a further 400,000 barrels per day. These cuts, together with the re-imposition of sanctions on Iran by the US in November, placed an upward pressure on prices.

## 2 North Sea activity

**As the industry gains momentum, available capital may need to be diverted to forward-looking projects with long-term payoff.**

There is capital available to do this and there are signs of recovery, but the industry has yet to commit. Exploratory drilling in the North Sea has continued to dwindle in 2018, reaching its 1965 levels<sup>2</sup>. However, although production activity has stabilised since 2015, the life of older assets is being extended and forecasts signal recovery in exploratory activity, with the Norwegian sector experiencing the largest share of the growth. Johan Sverdrup, one of the biggest oil fields discovered in Norwegian waters, holds promising potential for growth in Norway, while in the UK, west of Shetland is the focus of attention.

Development expenditure is expected to pick up in 2019. This will be partly due to new players entering the market and partly due to BP and Shell's capital commitments to continue sanctioning new projects as well as building on existing infrastructure<sup>3</sup>. According to Wood Mackenzie<sup>4</sup>, new operators entering the North Sea will account for 80% of greenfield final investment decisions (FIDs) expected in 2019<sup>5</sup>. Company strategies differ, of course, and greenfield developments are not the only focus on this group: some have adopted an 'acquire and exploit' approach, where under-capitalised assets' operational processes are streamlined to optimise production and lower costs. Independently of the choice between greenfield and brownfield investments, this dynamic group is bringing new opportunities with them and, in 2019, this augurs well for North Sea activity.



### 3 Global exploration

**Exploration budgets continue to tighten, with less than 10% of upstream budgets allocated to the search for new resources against a long-term average in excess of 15%.**

Despite this financial discipline, 2018 reversed the falling trend of the previous two years to become the best year for conventional hydrocarbon discoveries since 2015, partially as a result of greater cost efficiency within declining budgets. This said, the expected discovery level of 9.4 billion(bn) barrels remains well below the 17bn in 2015 and well below the days of the 30bn increase in 2012.

The Atlantic margins continue to provide exploration success; in recent years on the West African side in Senegal and Mauritania, whereas 2018 was dominated by the Guyana-Suriname basin with ExxonMobil adding more than 2bn of recoverable oil reserves to reach over 5bn barrels in the area. Elsewhere, the US Gulf of Mexico hosted exploration success for more majors, Chevron and Shell together adding more than 700mn barrels to reserves. However, this is just over half that reported for Russia, with Novatek leading Gazprom with the North Ob skoye field, at 935mn boe just below the 1bn barrel mark of an 'elephant'-sized field.

**"2018 reversed the falling trend of the previous two years to become the best year for conventional hydrocarbon discoveries since 2015."**

### 4 Cost and investment cycles

**In recent years, the mid-caps and specialist explorers have made the exploration headlines, but the 2018 discoveries evidence a renewed appetite for exploration amongst the supermajors.**

This shift away from value creation through M&A activity is set to continue as these companies have taken on significant exploration positions along the West African coastline, searching for the next elephant field.

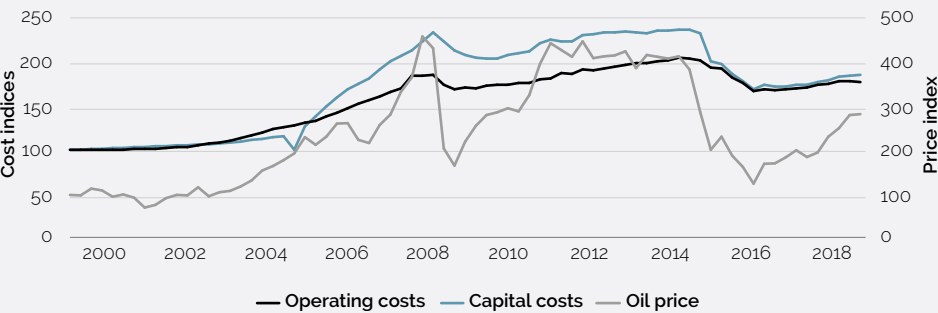
The upward pressure on the price of a barrel tightens the market for inputs to the production process, and vice versa. The graph below clearly shows the linkages between the oil price and the capital cost (the cost of constructing a producing facility) and the operating cost (the ongoing cost of producing from this facility). The 2018 data reveals the cost price inflation that is underway again, albeit that this aggregated data conceals significant regional divergences.

Globally, the US saw the highest oil production growth, but this is accompanied with double digit cost growth whereas

other areas such as the North Sea are only recently showing signs of cost inflation. On the other hand, other sectors such as the deepwater market are yet to tighten, although increases through 2018 in the utilisation rates for FPSOs are a sign of the potential for price increases into the future.

A key determinant of this will be FIDs being considered in boardrooms, where 2018 saw continued weakness in the number and value of projects being sanctioned. Some of this is due to delays, however, and so will create a boost to the already high expectations set for 2019 into 2020.

IHS cost and Brent crude price indices

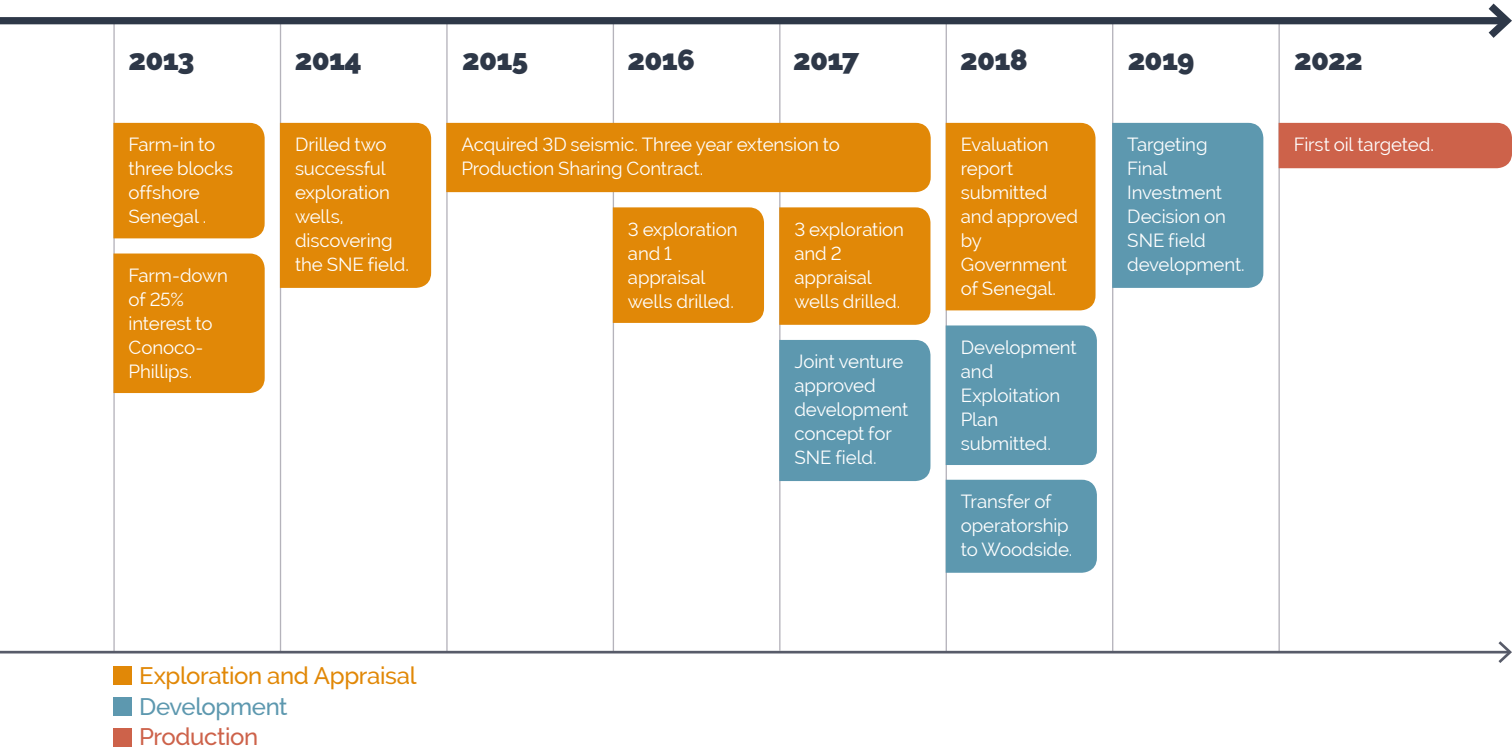


Source: IHS Markit/EIA

Operational Review  
Cairn in Senegal – an Overview

# Senegal: transforming exploration success into development

In 2013 we acquired acreage offshore Senegal to meet our stated aim of holding frontier exploration acreage with transformational potential. Senegal is located on the Atlantic Margin, an area of geological focus for us.







In 2013 Senegal was underexplored: hydrocarbon systems had previously been demonstrated on the Senegal shelf, and we believed there to be extensive source rocks and cretaceous reservoir systems. We acquired an early farm-in as operator to three contiguous blocks offshore with a 65% interest, farming-down to a 40% interest shortly thereafter.

Over the next four years we added value to our Senegal interest by moving the project from an exploration to a development project and carrying out multiple drilling programmes, drilling a total of 11 wells over three years.

Just 20 months after farming-in to the acreage we had drilled two successful wells,

one of which was the largest global oil discovery of 2014, and opened a new hydrocarbon basin, marking the start of significant interest from the global oil industry. Following discovery, Cairn went on to operate two more drilling programmes and laid the foundation for a multi-phase development plan.

After drilling the SNE-1 well in 2014, SNE was estimated to have a gross mean unrisked prospective resource of ~330 million barrels of oil (mmbbls). Today the 2014 SNE discovery has been transformed into the SNE field development project\* which will be developed in a series of phases with plans for ~500 mmbbls and gross production of ~100,000 barrels of oil per day (bopd) with first oil targeted in 2022. The first phase is targeting capital expenditure of >US\$3 billion. Following the establishment of oil production, commercial gas sales to Senegal are expected to commence. This marks the addition of significant value both for Cairn and for Senegal.

\* Subject to final approval from Government of Senegal

11 wells

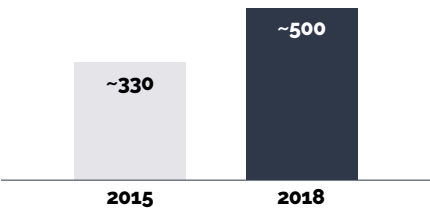
over 3 years

Targeting

100,000

barrels of oil per day (bopd)

Resources (mmbbls)





**Operational Review** continued  
Cairn in Senegal – Working Responsibly

# Senegal: creating shared value

Throughout our work in Senegal we have sought to create and add value by working responsibly. Our objective was and is to build a resource base that can be developed to maximise the value for Senegal as a country and improve its energy security.

**Social investment** – Cairn has supported The Hunger Project in Senegal since 2015

In working responsibly in Senegal our focus has been on:

- Ensuring the safety of our personnel and contractors at all times;
- Working with local suppliers and contractors wherever possible and providing appropriate training to build their capabilities and national capacity;
- Identifying and engaging with our many stakeholders in country to ensure we act with respect and to identify early on those who might be affected by our activities;
- Providing targeted social investment for communities; and
- Operating to international and high internal standards at all times.

## Understanding our stakeholders

On first entering Senegal in 2013 and ahead of drilling, a key focus, as wherever we operate, was on identifying our stakeholders.

To help identify stakeholders, we undertook in-country research trips, engaged with partners and consultants based in Senegal, used local and corporate media monitors and internet sources and commissioned an external agency to carry out a stakeholder mapping exercise. Amongst others, we held meetings with national and regional government bodies, industry associations, fishermen's organisations, public research centres, supply chain representatives and NGOs.

This engagement helped us to understand local concerns, communities and

environments and to set the tone for our approach to operating in country, and form our approach to building local and national capacity and social investment programmes in the years to come.

## Protecting the environment and communities

In order to identify the potential impacts exploration drilling could have on the local population and habitats, we have carried out both statutory and voluntary consultation as part of the Environmental Social Impact Assessments. This consultation ensures that potentially affected and interested stakeholders have the opportunity to ask questions about our activities.

## Our country presence

In 2014, to support the drilling of our initial wells, we opened an office in the capital Dakar with a local and international team whose focus was to work closely with the Government, suppliers and local communities. In 2015 we re-generated a former industrial site in the international port area to build a modern, shore base supply facility operating in line with best industry practice and contracting in excess of 30 local staff involved in activities including yard operations, vessel loading, HSE supervision, customs management, driving, security and stevedoring. This is part of Cairn's approach to operations in any country to maximise local participation, including employing local



Understanding our stakeholders – 2013 ESIA consultation



people and working with local companies wherever possible. Following the transfer of operatorship to Woodside in December 2018 we retain an office in Dakar.

**Our investment**

Following the 2014 discoveries, as our operational activity increased so too has our investment and our focus on delivering sustainable and economic benefit for Senegal and its people. Our belief is that the development of sustainable oil and gas production in Senegal will greatly benefit the national economy and therefore the local population. To date Cairn has invested ~US\$463 million through its activities in Senegal.

**Building local capacity**

Given that oil and gas activities are relatively new to Senegal, we aim to support and build local industry expertise. As such, developing capacity through training and education has been, and remains, a key part of our operations.

As part of this, in our Dakar office we have offered a number of training opportunities including English language training, HSE training and organised visits to our headquarters in Edinburgh to reinforce our culture and to improve communications and cultural understanding. We have provided training to more than 162 officers of the relevant regulatory authorities to support the oil and gas regulatory environment in Senegal. This training covered oil and gas industry awareness, HSE awareness, offshore safety, offshore emergency response including oil spill response, waste management and English language training. We have also provided English language training to 75 geoscience and science students at the University of Dakar to build

local skills. We have engaged local companies in logistics and supply base support, waste management services, aircraft handling services, transport services, fishing liaison, administration, accommodation and environmental and social consultancy services.

Today we are delighted to have played a founding part in the launch of Invest in Africa in Senegal, an initiative to promote development of local SMEs and facilitate their access to oil and gas industry projects and other multi-national projects, and the National Petroleum Institute which aims to develop national expertise in the oil and gas sector in Senegal. Both of these have the common aim of building national capacity and participation.

Investment in Senegal to date

US\$463m

Our country presence – Dakar office team, 2015



Building local capacity – Stena DrillMAX drillship, drilled 2014 discovery wells



Our country presence – Our shore base team, 2017

# **Operational Review** continued Cairn in Senegal – Working Responsibly continued

## **Social investment**

We have supported targeted social investment programmes with a total expenditure of -US\$11 million to date. In Senegal much of this has taken place through The Hunger Project (THP), a charity committed to reducing hunger and poverty. THP has operated in Senegal since 1991. We first started supporting them in 2015 and in 2016 we established a pilot project with THP that continues to run and that aims to support more than 20,000 people from seven coastal fishing village communities in the Yenne area adjacent to areas where Cairn operates. This is a direct result of our initial stakeholder consultation findings in 2013 which identified the fishing industry as a key area in need of support and potentially impacted by our activities. We are delighted that in 2018 this project has resulted in the mobilisation of seven village communities working to improve safety at sea, health and sanitation, gender equality, micro-finance and income generating activities such as the laying of octopus pots which are a high value product for fishermen.

1,600 octopus breeding pots were laid in 2017 resulting in the landing of 104,382kg of octopus in Yenne in 2018. This equates to a



Social investment – The Hunger Project

value of -US\$707,902 and results from THP's investment of -US\$3,700 using joint venture funding. As a result of this successful 2017 pilot programme and the resultant community profit, 1,700 breeding pots were laid in 2018, significantly more than the original estimate to lay 1,000 pots in 2018.

We have also supported ECOBAG, a local business which collects plastic waste and recycles it into plastic pellets for re-use, from its early beginnings to an established ongoing concern. ECOBAG was the winner of the Great Entrepreneur Project, a competition for local entrepreneurs, which was run by the British Council and sponsored by Cairn.

## **Transferring operatorship**

In December 2018 we transferred operatorship of the SNE development project to our joint venture partner Woodside. We are proud to be handing over a project

which is focused on sharing the value generated by these oil and gas discoveries through the way in which we work, our contributions to the Extractive Industries

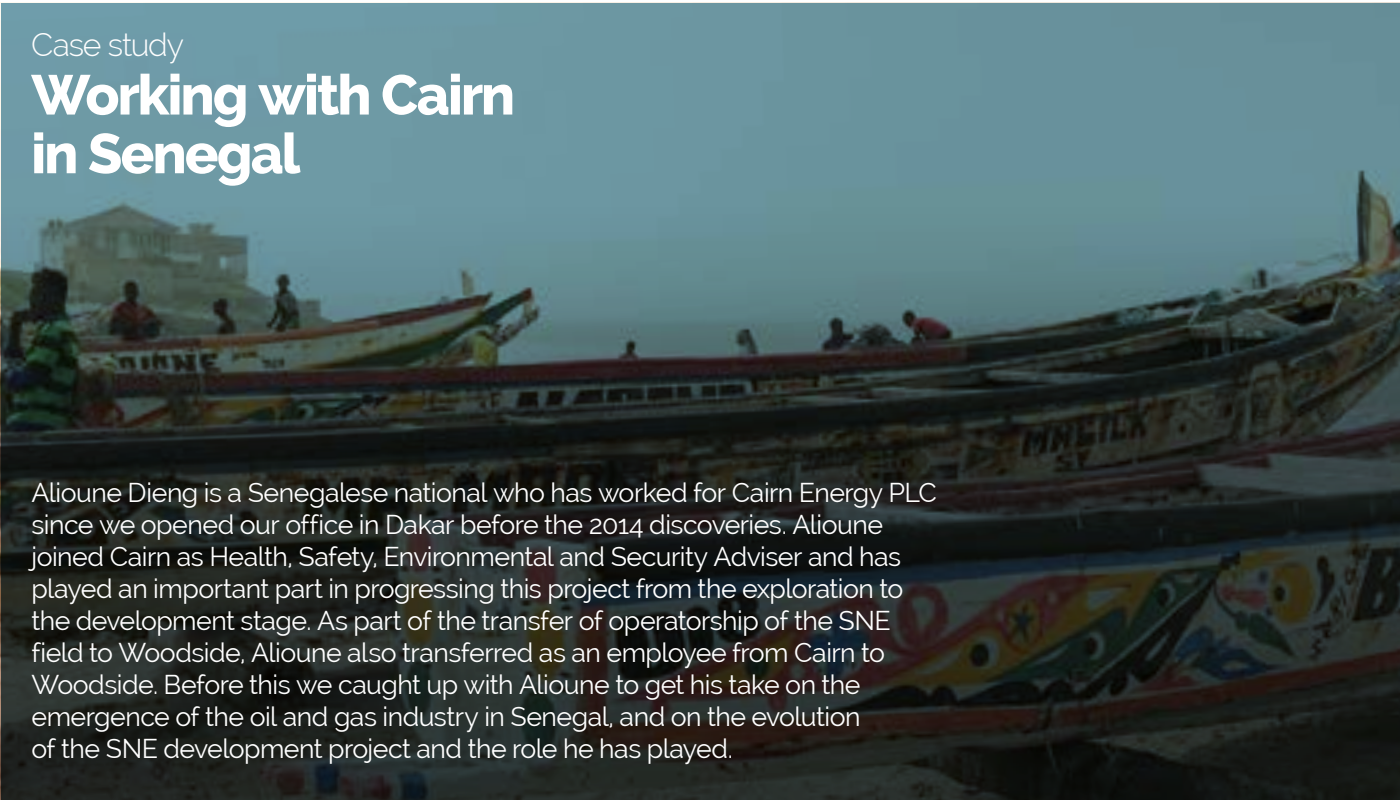
Transparency Initiative in Senegal and the foundation of programmes to support capacity building, local participation and the mobilisation of communities in Senegal.



Social investment – Laying the octopus breeding pots







Case study

# Working with Cairn in Senegal

Alioune Dieng is a Senegalese national who has worked for Cairn Energy PLC since we opened our office in Dakar before the 2014 discoveries. Alioune joined Cairn as Health, Safety, Environmental and Security Adviser and has played an important part in progressing this project from the exploration to the development stage. As part of the transfer of operatorship of the SNE field to Woodside, Alioune also transferred as an employee from Cairn to Woodside. Before this we caught up with Alioune to get his take on the emergence of the oil and gas industry in Senegal, and on the evolution of the SNE development project and the role he has played.

**On the emergence of the oil and gas industry in Senegal**

"As a Senegalese, I am very excited that my country will soon be an oil and gas producer. The Senegalese people welcome it, and this will benefit the country as a whole. It is important to Senegal in terms of securing the country's supply of petroleum products, improvement of power generation and possible lower electricity prices for consumers, jobs creation and infrastructure construction."

**On Alioune's role**

"I am responsible for all HSE and Security matters in our Senegal operations, acting as the focal point of various social investment programmes and advising on regulatory permits and approvals relating to HSE and compliance. A lot of my time is spent on stakeholder engagement, liaising with governmental departments, local community and municipal leaders."

"My greatest challenge has been around permitting, which all oil and gas activities start with. Cairn has a rigorous approach to government permissions and approvals, so we always submit permit applications on time and provide required information to the Senegalese authorities to make their decision making process easier and quicker. Since starting work in Senegal we have never experienced a delay on

permitting approval and we would like to thank the Senegalese authorities for their support and the partnerships they have built with our Company."

"There are two things which I have most enjoyed during this journey. The first is having the chance to work in a team where people are very keen to share their knowledge and to work together. As a new industry, this is the type of behaviour that is required. The other is our achievements in protecting people, the environment, our assets and our reputation as part of this success."

**On handing over operatorship**

"As we effect the transfer of operatorship I am proud to have been part of projects such as supporting the Yenne fishing communities, the English language training for young Senegalese students and Senegalese civil servants, and the enterprise development opportunities which will take shape through Invest in Africa. Throughout this project our focus has been on building relationships with different stakeholders. We have organised many different industry workshops and training courses, and compared to 2014 we are really pleased to notice an increased understanding of the industry and the challenges and opportunities which await our country."



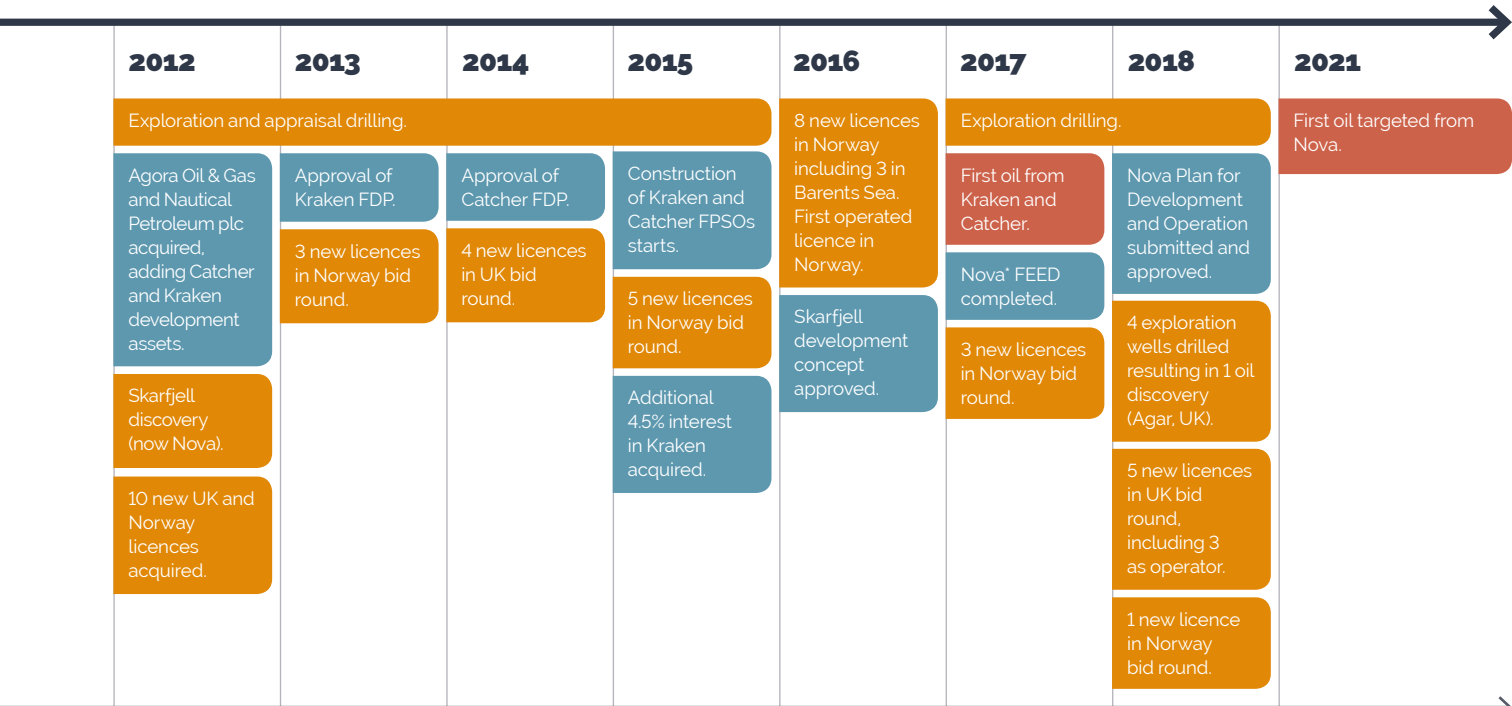
Saraou Kombo, Cairn Office Senegal and Alioune Dieng, now Woodside, at MSGBC Conference, Dakar.

**"A lot of my time is spent on stakeholder engagement, liaising with governmental departments, local community and municipal leaders."**

**Operational Review** continued  
Cairn in the UK and Norway – an Overview

# North Sea: transforming development assets into production and cash flow

In 2012 Cairn acquired two North Sea focused businesses as part of our strategy to build a balanced business of exploration, development and production assets.



■ Exploration and Appraisal  
■ Development  
■ Production

\* Skarfjell renamed Nova in 2017





Cairn’s North Sea focused acquisitions brought with them non-operated interests in the Kraken and Catcher oil discoveries in the North Sea and the prospect of secured future long term cash flows as these discoveries transitioned into development and then production. They also brought with them the Skarfjell oil discovery made in 2012 (today known as Nova).

Today Kraken is producing oil. Catcher is producing oil and gas and Nova is in the development planning stage with first oil targeted for 2021. The progression of these assets through the life cycle from development, to pre-development, and finally to production demonstrates the business model in action with value being realised in the production stage through cash flows.

First oil from Catcher was delivered in December 2017 and from Kraken in June 2017 with oil and gas sales revenue of US\$395.7m for the year ended 31 December 2018. At their peak, the cash flow from these fields will sustain the business in supporting future exploration and the progression of Nova and the Senegal SNE developments to first oil. As cash flows from Kraken and Catcher start to reduce, cash flows from Nova and SNE will commence and provide the funding to sustain future exploration and development.

As non-operator of these development and production assets our focus remains on ensuring these projects are delivered in line with our expectations around working responsibly. Our role involves oversight, challenge and assurance within the joint venture. Compliance with our Corporate Responsibility Management System, which ensures our principles are applied across all aspects of our business, is required in a non-operated joint venture and this helps us to ensure our high standards of operation are upheld.



**Operational Review** continued

# Operational Review:

## For the year ended 31 December 2018

Simon Thomson, Chief Executive Officer, Cairn Energy PLC said:

**"Cairn plans a material exploration programme in 2019 targeting a billion barrels of gross resources, supported by cash flow from our production base. With active development projects within the portfolio, we look forward to additional sustained production and cash flow generation over the long term."**

Cairn offers shareholders multiple catalysts for value creation. Our financial flexibility and continued focus on capital discipline ensure that the company remains strongly positioned to deliver an active programme."

## Highlights of 2018

### 2018 Summary

Combined net production averaged <b>~17,500* boepd</b>
Oil and gas sales revenue US\$396m, average realised price <b>US\$68 boe**</b> ; average production cost US\$20.5 per mmboe
Net cash inflow from oil and gas production <b>US\$229m</b>
Capital expenditure: cash outflow of <b>US\$252m***</b> , remaining cash outflows post year end US\$30m
Year end Group cash <b>US\$66m</b> ; <b>US\$85m</b> drawn under <b>US\$575m</b> RBL facility
Operating loss <b>US\$182m</b> from the impairment of Kraken following downward revision in reserves; net loss after tax <b>US\$1.1bn</b> resulting principally from write down of Cairn's investments in India

### 2019 Outlook

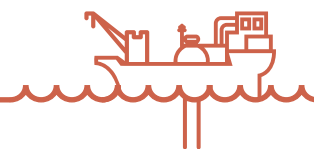
Estimated net production of <b>19,000 to 22,000 bopd*</b> ; average production cost <b>US\$20/bbl</b>
Forecast capital expenditure <b>US\$300m***</b>
Senegal – SNE field development first phase on schedule. Targeting first oil 2022, gross production <b>100,000 bopd</b>
Norway – Nova field development on schedule. Targeting first oil 2021, peak gross production <b>50,000 bopd</b>
UK and Norway – up to four exploration wells (three Cairn operated) planned, targeting <b>~500 mmboe</b> . The first well in the programme, Presto, spudded on March 1
Mexico – three exploration wells (two Cairn operated) planned targeting <b>~500mmboe</b>
Hearings for Cairn's arbitration claim against India concluded in 2018; drafting of the award by the Tribunal is ongoing

Combined net production averaged (boepd)
~17,500*
Oil and gas sales revenue
US\$396m
Year end group cash
US\$66m

\* Before FlowStream's production entitlement of ~1,360 bopd in 2018; expected to be 1,350 to 1,575 bopd in 2019.  
\*\* Before hedging costs of US\$1.34 boe.  
\*\*\* Net of Norwegian tax refund.



# Operational Review continued



## Reserves

Group 2P reserves increased during the year by 2.5 mmboe from 53.8 mmboe to 56.3 mmboe.

Production during the year depleted reserves by 6.4 mmboe and a downward revision of 6.8 mmboe (19%) in the Kraken reserve estimates was offset by Nova which was sanctioned during the year adding 15.2 mmboe.

## Production

### Catcher

Gross production from the Catcher Area (Cairn 20% W/I) (comprising the Catcher, Varadero and Burgman fields) averaged 43,000 boepd in 2018. This reflected the field's ramp-up to plateau production rates in May following gas export commissioning and significantly increased plant availability during the second half of the year. Oil production from the Catcher FPSO continues to exceed nameplate capacity (60,000 bopd) and the JV has agreed with the FPSO provider to increase production from 60,000 bopd to 66,000 bopd (gross) on a reasonable endeavours basis. Reservoir performance to date has been good and analysis at year end 2018 has resulted in a slight increase in 2P reserves.

Cairn is working with the rest of the Catcher JV to optimise further investment in the Catcher area, including consideration of in-fill drilling and near-field opportunities to extend plateau production. A firm commitment has been made to drill an additional Varadero producer in 2020, with additional optional rig slots available for two further wells.

### Kraken

Gross production from Kraken (Cairn 29.5% W/I) averaged 30,300 boepd in 2018, which was below expectations. Production levels were most significantly affected by production system outages on the FPSO, weather-related incidents and higher water-cut than originally expected. Cairn is working with the field operator and FPSO contractor to achieve improvements in the uptime of the FPSO and a planned shut-down is scheduled later in 2019. Reservoir performance has been evaluated and at year end, Cairn's estimation of Kraken 2P reserves has been reduced to reflect current performance. This has resulted in an impairment of US\$166.3m in the carrying value of the Kraken asset. The JV is evaluating further investment opportunities in the Kraken area to provide new drilling opportunities in 2020.

The DC4 subsea infrastructure was successfully installed in H2 2018. The three-well DC4 drilling programme is ongoing and remains on schedule with production onstream from the first DC4 well.



Catcher



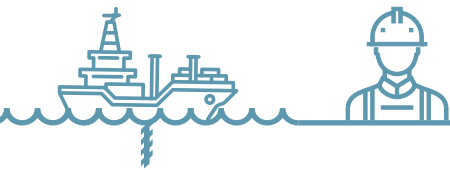
Kraken



Catcher



Kraken



## Development

### Senegal – SNE

In 2018 substantial progress was made on the SNE field multi-phase development (Cairn 40% WI) with a number of key milestones achieved. Our partner Woodside has now assumed the role of operator, as planned, and the JV is targeting a final investment decision in mid-2019 and first oil in 2022.

The SNE development concept is a stand-alone FPSO vessel facility with a capacity of ~100,000 bopd, with 23 subsea wells and supporting subsea infrastructure. It will be designed to allow subsequent SNE development phases, including options for gas export to shore and for future subsea tiebacks from other reservoirs and fields.

In January 2019, the JV received approval in principle for the technical basis of the SNE Development and Exploitation Plan and confirmation that the licence covering the SNE development area would be extended to allow for the conclusion of FEED and to mature financing activities during 2019 prior to Exploitation Licence award. Separately, the JV has submitted a request to the government for an extension of the licence

area covering the FAN and SNE North/Spica exploration areas to undertake further evaluation.

The Environmental and Social Impact Assessment (ESIA) was submitted in 2018 and approved in January 2019.

Project finance has been successfully launched with detailed work underway on financing structures for the JV.

FEED activities for the subsea contract and for the FPSO facility have been awarded to Subsea Integration Alliance and MODEC International Inc, respectively. The FEED work involves undertaking activities required to finalise the costs and technical definition for the development to enable a final investment decision.

The JV is now planning to undertake a 3D high bandwidth seismic survey in Q2/3 2019. It is expected that the survey will improve reservoir definition to support development well placement.

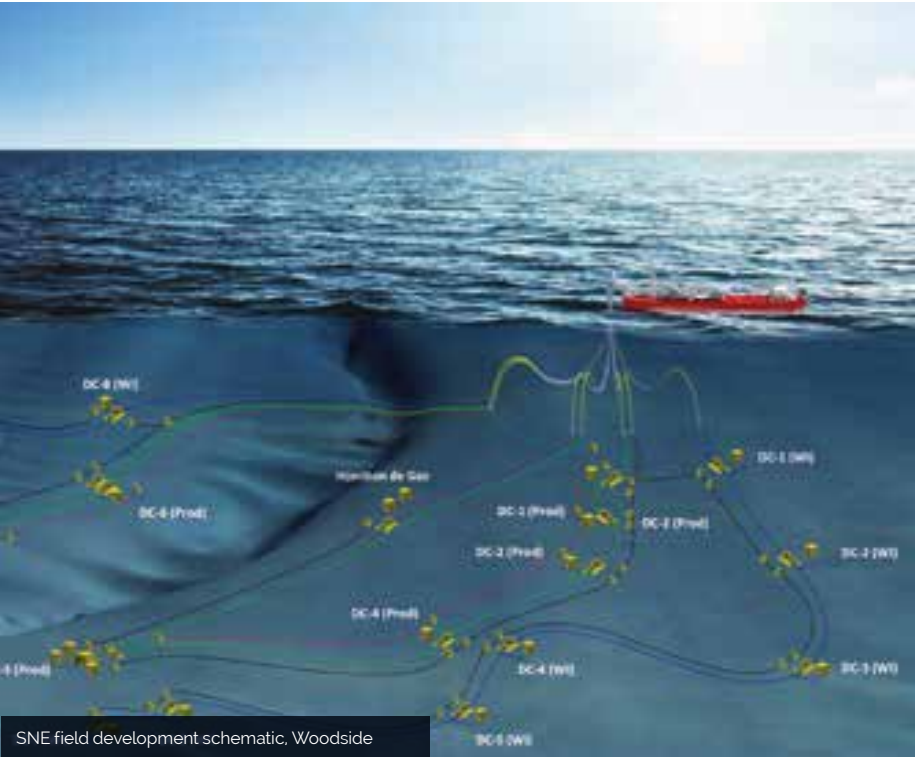
### Norway – Nova

The Nova (Cairn 20% WI) development in Norway is on schedule with first oil targeted in 2021 and expected to deliver peak production of 50,000 bopd (10,000 net to Cairn).

Cairn participated in the discovery of the Nova field in 2012, at the time known as Skarfjell. The field development is located in the Norwegian North Sea ~17 km south west of the existing Gjøa field and is estimated to contain recoverable resources of ~80 mmbbl.

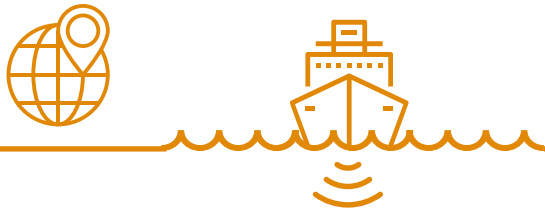
The Plan for Development and Operation (PDO) was submitted by operator Wintershall to the Norwegian Ministry of Petroleum and Energy and approved in H2 2018.

Hydrocarbons from the Nova reservoir will be developed with a subsea tie-back connecting two templates to the nearby Gjøa platform for processing and export. Development execution activities are expected to commence mid-year 2019 for the initial modification work on the Gjøa platform.





## Operational Review continued



### Exploration

In 2019 we have a programme of material exploration drilling opportunities across mature, emerging and frontier locations in Europe, West Africa and Latin America. We are planning up to seven wells targeting total gross volume of more than one billion barrels. In 2018 we acquired several new country interests in Suriname, Côte D'Ivoire and Mauritania adding further high impact volume potential to our asset base.

#### Mexico

Cairn holds three licences offshore Mexico, in Block 7 (Cairn 35% WI), Block 9 (Cairn operator 65% WI) and Block 15 (Cairn operator 50% WI) covering a total acreage position of 2,080 km<sup>2</sup> in a highly prolific, yet under-explored region.

The first well in our Mexico programme will be drilled on Block 7, operated by ENI. The Operator is progressing all required permits. A site survey will compete shortly and well selection and preparations are well advanced to commence drilling in Q3 2019. An additional well is planned on Block 7 in 2020.

The second well will be on Block 9 and operated by Cairn. The exploration plan has been approved and a rig contract is in place with Maersk for the Maersk Developer Semi-Submersible Drilling Rig and a group services package with Schlumberger for onshore and supply base operations. Drilling operations are expected to commence in Q3 2019 targeting the Alom prospect, followed

by an additional well targeting the Bitol prospect in Q4 2019 (also Cairn operated). This will be the third well in our Mexico programme.

On Block 15, the exploration plan was submitted in Q4 2018 and an environmental baseline survey completed in Q1 2019. Further evaluation of the block is ongoing.

#### UK & Norway

Cairn participated in four exploration wells in the UK & Norway region in 2018: PL682 (Cairn 30% WI) targeting the Tethys prospect in Q1, PL790 (Cairn 25% WI) containing the Raudåsen prospect in Q2, P2184 (Cairn operator 45% WI) targeting the Ekland prospect in Q4 and P1763 (Cairn 50% WI) containing the Agar discovery and Plantain prospect also in Q4.

Agar is estimated by the operator to hold recoverable resources of 15-50 mmboe. Further evaluation of the development options and broader exploration potential is ongoing. Cairn has the option to take over operatorship of future activity on the area.

Cairn was awarded three new licences in the Norwegian Petroleum Directorate's APA 2017 announced in Q1 2018, all non-operated with material equity positions, and one new non-operated licence in the APA 2018, PL418B. Cairn was also awarded five new licences, three as operator, in the UK Oil &

Gas Authority's 30th Offshore Licensing Round in Q2 2018.

Plans are in place for four exploration wells in the UK/Norway region in 2019, three of which will be operated by Cairn. The first well in the programme, operated by Equinor, is Presto (Cairn 30% WI) which has commenced operations with the Transocean Spitsbergen rig on PL885 in the Norwegian North Sea.

The second well in the programme is expected to be Lynghaug. Cairn's first operated well in Norway. Lynghaug (Cairn 50% WI), licence PL758, is expected to spud in Q3 2019. Success in this well could lead to follow on exploration opportunities along the Nordland Ridge. Lynghaug will be drilled by the Transocean Arctic drilling rig.

The third well in the programme is Godalen (Cairn 40% WI) in licence PL842. Cairn's second operated well in Norway, which is expected to spud in Q4 2019. Godalen will also be drilled by the Transocean Arctic.

The fourth well in the programme is Chimera (Cairn 60% WI) in licence P2312 in the UK North Sea. Cairn's second operated well in the UK, which is expected to spud in Q4 2019. In Q4 2018, Cairn agreed to farm out a 40% WI in this licence to Suncor Energy UK.



Mexico



Mexico round 3.1 Block 15 PSC signature June 2018



UK



Republic of Ireland



Mauritania

**Suriname**

In 2018 Cairn was awarded an exploration agreement (Cairn operator 100% WI) on the largest block offshore Suriname by Staatsolie, the State Oil Company of Suriname. The licence covers an area of ~13,000 km<sup>2</sup> in the Demerara plateau in the Guyana-Suriname basin which has a conjugate margin to the SNE field in Senegal.

In December 2018, Cairn's ESIA was submitted and approved ahead of our initial planned 2D seismic acquisition commitment of 4,150 km. 85% of this seismic programme has now been successfully completed with the remaining 15% expected to complete by the end of Q2 2019. Data processing will be ongoing for the remainder of this year.

**Mauritania**

In Mauritania, Cairn has an option agreement with Total to enter block C7, targeting a turbidite fan play in a large offshore exploration block in a proven oil province. Cairn has a right to acquire a 30% WI (Total operator 60% WI and Soci t  Mauritanienne des Hydrocarbures 10% WI), subject to government and partner approvals. A ~7,000 km<sup>2</sup> seismic programme was completed in 2018 with final interpretation of data expected in H1 2019 after which a well decision will follow.

**C te d'Ivoire**

In C te d'Ivoire, Cairn has entered into the continental rift play with Tullow Oil. Cairn has agreed a farm-in for a 30%, non-operated, interest in all seven of Tullow's onshore licences (CI-301, CI-302, CI-518, CI-519, CI-520, CI-521 and CI-522), subject to obtaining the necessary government approvals. Tullow completed a full tensor gravity gradiometry survey covering 8,600 km<sup>2</sup> in H1 2018, following which a 2D seismic survey is planned for 2019.

**Republic of Ireland**

In the Republic of Ireland, Cairn has an acreage position in the Porcupine Basin with an interest in two licences and two licence options over an area of ~4,000 km<sup>2</sup>. Processing of the 3D seismic data set acquired in 2017 across LO 16/19 (Cairn operator 70% WI) and the adjacent LO 16/18 (Cairn 100% WI) is now complete.



C te d'Ivoire



Suriname

**India**

Cairn commenced proceedings against India in 2015 following retrospective taxation actions undertaken by the Indian Income Tax Department ('IITD') in 2014. Final merits hearings for the arbitration concluded during 2018. Cairn's claim under the Treaty is for monetary compensation of ~US\$1.4 billion, the sum required to reinstate the Company to the position it would have been in, but for the actions of the IITD since January 2014. The arbitration Panel is expected to issue a binding and internationally-enforceable award, and Cairn continues to have a high level of confidence in the merits of its claims in the arbitration.

Now that the merits submissions and hearings have concluded, the arbitration Panel is preparing its final award with respect to Cairn's claim under the Treaty. The Panel had originally guided the arbitration parties that it expected to issue an award expeditiously following the conclusion of the main merits hearings in The Hague held in August 2018.

When the parties appeared before the Tribunal in December 2018, the Panel advised that it had not been able to advance the award as expected due to the number of procedural matters that had been brought before it since the August hearings, and that it is was not in a position at that time to give guidance to the parties on the expected timing of the issuance of the award.

Cairn subsequently wrote to the Panel in February 2019 asking if it was then able to provide any guidance on timing, and the Panel has now responded that although it remains mindful of Cairn's need for a swift decision, given its workload and the number of matters before it, it is still unable to provide specific guidance on timing. As a result of this, Cairn expects that the timetable for issuing the award will be more protracted than originally anticipated and is unlikely to be before late 2019.

The Panel has said it will keep the parties updated regarding its progress.

To date, the IITD has seized dividends due to Cairn from its shareholding in Vedanta Limited (VL) totalling approximately US\$164m and it has offset a tax rebate of US\$234m due to Cairn as a result of overpayment of capital gains tax on a separate matter. During the year, the IITD seized proceeds from a 4.9% sale of Cairn's shareholding in VL, together with redemption proceeds on the VL preference shares, totalling US\$713m. Following these sales, Cairn's retained holding in VL is now 0.1%.



## How We Manage Risk

### Managing business risks

Managing risks and opportunities is essential to Cairn's long term success and sustainability. All investment opportunities expose the Group to political, commercial and technical risk and the Group maintains exposure to these risks at an acceptable level in accordance with the Group's appetite for risk.

The Group's risk management framework provides a systematic process for the identification and management of the key risks and opportunities which may impact the delivery of the Group's strategic objectives. KPIs are set annually and determining the level of risk the Group is willing to accept in the pursuit of these objectives is a fundamental component of the Group's risk

management framework. As outlined below, this integrated approach to the management of risk and opportunity plays a key role in the successful delivery of the Group's strategy.

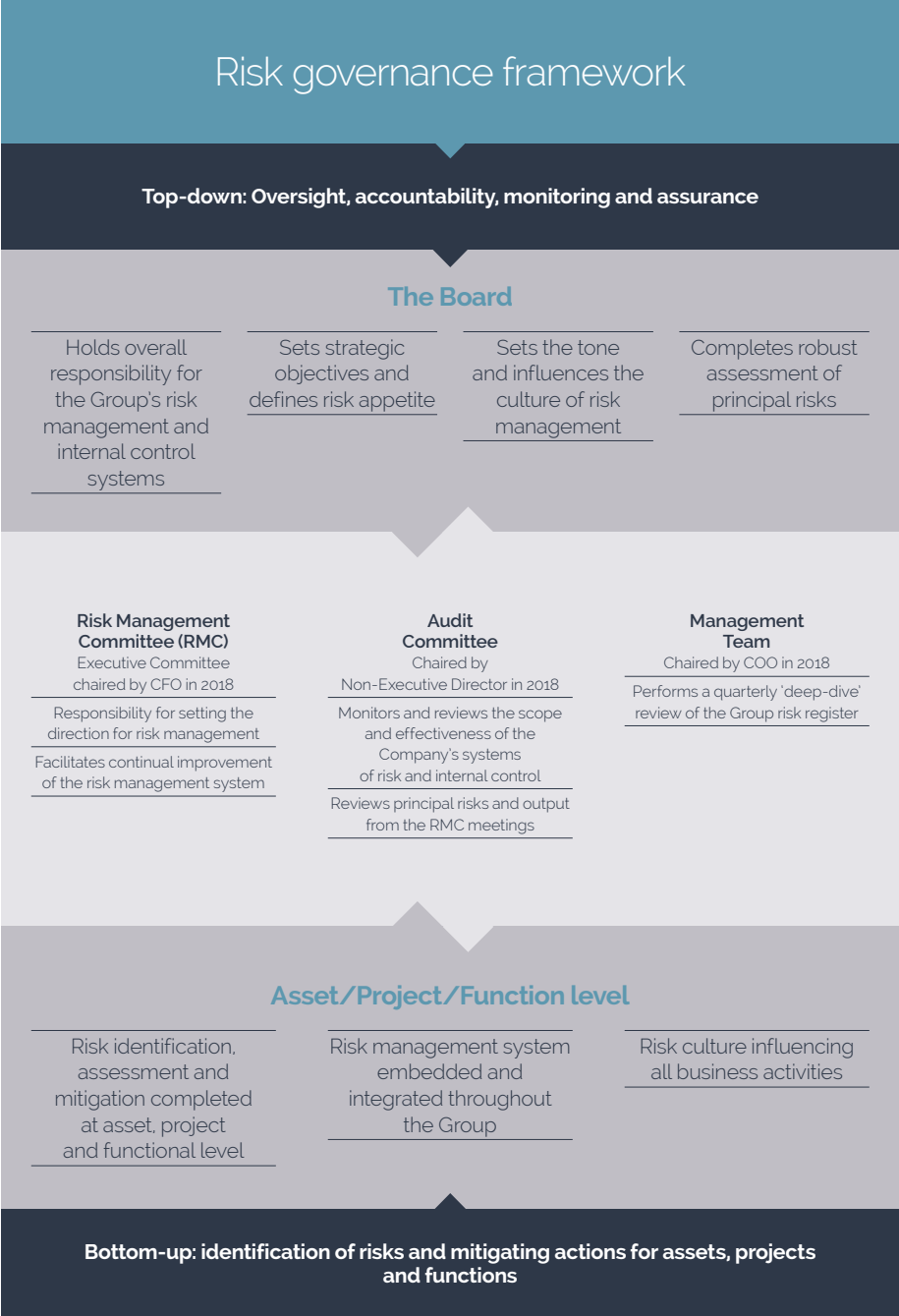
Cairn's system for identifying and managing risks is embedded from the top down in its organisational structure, operations and management systems and accords with the risk management guidelines and principles set out in ISO 31000, the International Standard for Risk Management. The Group's risk management structure is set out in the structure below.

### Risk governance

Overall responsibility for the system of risk management and internal control and reviewing the effectiveness of such systems

rests with the Board. Principal risks, as well as progress against key projects, are reviewed at each Board meeting and at least once a year the Board undertakes a risk workshop to review the Group's principal risks.

The Group's framework for risk management promotes a bottom-up approach to risk management with top-down support and challenge. The risks associated with the delivery of the strategy and work programmes and the associated mitigation measures and action plans are maintained in a series of risk registers at Group, asset, function and project level. Reporting of these risks within the organisation is structured so that risks are escalated through various internal management, Board committees and to the Board itself.



**Responding to the changing risk environment in 2018**

As part of our goal to seek continual improvement of the risk management process, the following tasks were completed in 2018:

- The Board completed a risk workshop which focused on assessing above ground risks across the portfolio. The objective of the workshop was to evaluate the risk profile of the current portfolio in relation to above ground risk and consider how it may evolve over time. The outputs were then compared with the risk parameters outlined in the Group Risk Appetite Statement to ensure they were still appropriate;
- The Management Team conducted a review of the risks, mitigations and actions

identified on the Group risk register each quarter to ensure ownership for the risks, mitigations and actions were clearly assigned and implementation dates for actions were tracked;

- A gross to net risk assessment was completed on the principal risks. This assessment helped identify high impact risks and the areas where there is a heavy reliance on the controls and mitigating actions;
- EY, the Group's internal auditor, delivered the annual internal audit plan which consisted of a number of risk areas identified from the risk register. Topics covered in 2018 included the General Data Protection Regulation (GDPR), hydrocarbon sales, Mexico new country setup and key financial controls. The

Group has been working through the year to implement the identified improvements; and

- Training was delivered to employees on anti-bribery and corruption, cyber security, GDPR and the Corporate Offence of Failure to Prevent the Facilitation of Tax Evasion.

**Viability Statement**

**Strategy, business model and context**

The Group's strategy and business model are described on page 4 of this report.

During 2018, with both the Kraken and Catcher fields on production throughout the year, the Group generated significant operating cashflows. In Senegal, the Group continues to focus on developing its significant discovered resource base, and an Exploitation Plan was submitted to the Government of Senegal which, when approved, will secure the commercialisation of that resource base under long term licence. A final investment decision on phase 1 of this development is planned in 2019 with first production targeted in 2022. In Norway, the Nova development was sanctioned during the year and first production is anticipated in 2021.

Over the near to medium term, operating cash flows from the Kraken and Catcher fields, together with borrowing facilities to support the development projects in Senegal and Norway, will form the primary source of funding for the Group. The Group will continue to deploy these funds on both development opportunities and across the Group's wider exploration and appraisal portfolio.

**Assessment process and key assumptions**

The Group's financial outlook is assessed primarily through its annual business planning process. This process includes a Board strategy session, led by the Senior Leadership Team, at which the performance of and outlook for the business are assessed and capital allocation decisions are made. The outputs from the business planning process include a set of Key Performance Objectives, the Group risk matrix, the

anticipated future work programme and a set of financial forecasts that consider the sources of funding available to the Group against the capital requirements of the anticipated future work programme (the base plan).

Key assumptions which underpin the annual business planning process include forecast oil and gas prices, forecast cost levels for oil and gas services and capital projects, production profiles, operating costs of the producing assets and the availability of debt under the Group's lending facilities.

The Board recognises that a significant part of the anticipated work programme is dependent on the results of future exploration or appraisal activity and that it is the Group's strategy to actively manage its licence portfolio to optimise its planned capital allocation. Consequently, reflecting this inherent variability in the longer term work programme, the Board has determined that three years is the appropriate period over which to assess the Group's prospects.

**Viability**

The Principal risks and uncertainties that affect the Board's assessment of the Group's viability in this period are:

- operational performance of the UK North Sea producing assets;
- the effect of volatile oil prices on the business and our partners financial position;
- the availability of debt to fund future development projects;
- the outcome and timing of a final resolution to the Group's arbitration claim against the Government of India; and
- the results of any exploration or appraisal activities.

The base plan incorporates assumptions that reflect these Principal risks as follows:

- projected operating cashflows are calculated using a range of production profiles and assume oil and gas prices in line with the current forward curve;
- material budget contingencies and allowances are included in cost estimates for exploration drilling and development projects;
- whilst resolution of the arbitration claim against the Government of India remains a strategic priority, the funding plan does not assume receipt of any award in Cairn's favour;
- lack of exploration or appraisal success would impede the delivery of Cairn's strategy but is not expected to affect the Group's ability to fund its committed work programme.

The Board also considers further scenarios around the base plan. These primarily reflect a more severe impact of the principal risks, both individually and in aggregate, as well as the additional capital requirements that would result from future exploration or appraisal success or the acquisition of new assets.

The directors consider the impact that these principal risks could, in certain circumstances, have on the company's prospects within the assessment period, and accordingly assess the opportunities to actively manage its licence portfolio and planned capital allocation as well as to bring in additional sources of funding at key milestones in asset development.

Based on the actions available to them, the directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the three year period of their assessment.



## How We Manage Risk continued

### Principal risks to the Group in 2018-2019

#### Principal risks and uncertainties

During 2018, through a number of internal forums such as the Board, the Group Risk Management Committee and Management Team, the Group reviewed the risks which could adversely affect the achievement of strategic objectives.

The tables below provide a summary overview of the principal risks to the Group at the end

of 2018, the potential impacts, the mitigation measures, the risk appetite and the KPIs or strategic objectives the risks may impact.

Cairn's principal risks are considered, in line with the Group Viability Statement, over a three year period. In addition to this three year assessment, Cairn actively considers emerging risks and threats as part of its risk assessment process. Climate change,

biodiversity and cyber security were identified as the top emerging risks which will be actively assessed and monitored (further information can be found in the Working Responsibly section on page 40).



Read more: **Working Responsibly** on P46

## Strategic objective: Deliver exploration success

### Principal risk: Lack of exploration success

Owner: Director of Exploration

Risk appetite	<b>High</b> – Exposure to exploration and appraisal failure is inherent in accessing the significant upside potential of exploration projects and this has been, and remains, a core value driver for Cairn. The Group invests in data and exploits the strong experience of Cairn's technical teams to mitigate this risk.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Limited or no value creation	Active programme for high-grading new areas through licence rounds, farm-ins and other transactions.	<b>No change.</b>	Successfully drill and evaluate a programme of six exploration wells across our portfolio.
Failure of the balanced portfolio business model	Portfolio of prospects and leads that offer opportunities with a balance of geological and technical risks.	<b>This risk remained static in 2018.</b>	Discover potentially commercial hydrocarbons in line with pre-drill expectations.
Negative market reaction	Highly competent team applying a thorough review process to prospects and development opportunities, and a team of geoscientists with a track record of delivering exploration success.	In 2018, Cairn participated in four exploration wells in the UK & Norway region: PL682 targeting the Tethys prospect in Q1, PL790 containing the Raudåsen prospect in Q2, P2184 targeting the Ekland prospect in Q4 and P1763 containing the Agar discovery and Plantain prospect also in Q4.	Mature up to six new independent exploration prospects with JV support for drilling in the period 2020-2021.
	Establishment of Exploration Leadership Team to undertake peer reviews and assurance.	Agar is estimated by the operator to hold recoverable resources of 15-50mmbbl. Further evaluation of the development options and broader exploration potential is ongoing.	

## Strategic objective: Mature developments

### Principal risk: Delay in Senegal development plan approval

Owner: General Manager, Senegal

Risk appetite	<b>Medium</b> – Developments are commonly subject to cost impacts and schedule delays. The Group therefore has a medium appetite for risk taking in the development stage.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Loss of asset value	Ongoing engagement with Senegal Government.	<b>No change.</b>	Mature the SNE field development project in Senegal to Final Investment Decision.
Project delays	Ongoing engagement with JV partners and other stakeholders.	<b>This risk remained static in 2018.</b>	
Negative market reaction	Development of joint venture funding plan.	Development and Exploitation Plan for the SNE field offshore Senegal was submitted in October, on schedule, to the Government of Senegal by the joint venture (JV). The JV is targeting a final investment decision in mid-2019 and first oil in 2022.	
Increase in capital expenditure	Integrated transfer of operatorship plan agreed with Woodside.	The Government of Senegal approved Woodside Energy (Senegal) B.V. as operator of the SNE field development.	

Strategic objective: **Portfolio management**

**Principal risk: Securing new venture opportunities**

Owner: Director of Exploration

**Risk appetite**                      **Medium** – Building and maintaining a balanced portfolio of current and future exploration, development and production assets is core to the Group’s strategy. New opportunities must first meet the Group’s strict investment criteria and successfully securing them will be dependent on the prevailing competitive environment.

Impact	Mitigation	2018 movement	2019 KPI objectives
Failure to replenish the portfolio	Geoscience, new ventures and commercial teams work closely to review and identify new portfolio opportunities.	<b>Decreased.</b>	Secure two new venture opportunities that meet corporate hurdles and have risk levels consistent with our Risk Appetite Statement. Measured against tests of control, materiality and commercial robustness.
Inability to replace reserves and sustain production levels	Experience and knowledge throughout the organisation in recognising prospective opportunities.	<b>This risk decreased in 2018 due to the Group’s success in securing new venture opportunities.</b>	
Loss of investor confidence	Risk assessments and due diligence process undertaken on all potential new country entries.	An additional operated licence was secured in the Mexico offshore bid round in H1 2018 to add to the two existing licences. The operated licence (50% W/I) with Citla as partner is on Block 15.	
	Development of discretionary capital allocation and opportunity ranking system.	In Suriname, a frontier area with multiple wells currently drilling in the region, Cairn was awarded an operated exploration agreement (Cairn 100% W/I) by Staatsolie on the largest offshore block.	
		In Côte d’Ivoire, Cairn has entered into the continental rift play with Tullow Oil. Cairn has agreed a farm-in for a 30% interest in all seven of Tullow’s onshore licences.	
		In Mauritania, Cairn has an option agreement with Total to enter Block C7, a large offshore exploration block in a proven oil province.	
		Cairn farmed into the P1763 licence in the UK North Sea with Azinor Catalyst in H1 2018 with the option of taking over as Operator. Cairn joins Azinor Catalyst for 50% of the sole risk drilling activity on the Agar discovery and Plantain prospect and 25% of the wider licence with existing partners.	
		Cairn participated in five applications in the UK 30 <sup>th</sup> Licence Round and in H1 was offered all five licences (three as operator and two as non-operator), incorporating most of the prospectivity we had identified prior to bidding.	



How We Manage Risk continued  
Principal risks to the Group in 2018-2019

Strategic objective: **Maintain licence to operate**

Principal risk: <b>Health, safety, environment and security</b>			
Owner: Chief Executive			
Risk appetite	Low – The Group continuously strives to reduce risks that could lead to an HSSE incident to as low as reasonably practicable.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Serious injury or death	Effectively managing health, safety, security and environmental risk exposure is the first priority for the Board, Senior Leadership Team and Management Team.	<b>No change.</b>	Demonstrate clear progress and achieve defined milestones in relation to HSSE/CR objectives, split into four key categories (Governance, Society, People and the Environment).
Environmental impacts	HSE training is included as part of all staff and contractor inductions.	<b>This risk remained static in 2018 due to continued strong HSSE performance.</b>	Achieve lagging HSSE indicators set in line with IOGP targets.
Reputational damage	Detailed training on the Group's Corporate Responsibility Management System (CRMS) has been provided to key stakeholders to ensure processes and procedures are embedded throughout the organisation and all operations.	The Group's safety performance has been effective overall in 2018, achieving zero lost time injuries, recordable injuries or spills across all Cairn operations.	
Regulatory penalties and clean-up costs	Process in place for assessing an operator's overall operating and HSE capabilities, including undertaking audits to determine the level of oversight required.	With ongoing operations in a number of countries in 2019, the Group will continue to work responsibly as part of our strategy to deliver value for all stakeholders.	
	Effective application of CRMS in projects.		
	Crisis and emergency response procedures and equipment are maintained and regularly tested to ensure the Group is able to respond to an emergency quickly, safely and effectively.		
	Third party specialists in place to assist with security arrangements and travel risk assessments.		
	Leading and lagging indicators and targets developed in line with industry guidelines and benchmarks.		
	Findings from 'Lessons learned' reviews are implemented from other projects.		

Principal risk: <b>Fraud, bribery and corruption</b>			
Owner: Chief Executive			
Risk appetite	Low – Cairn is committed to maintaining integrity and high ethical standards in all of the Group's business dealings. The Group has no tolerance for conduct which may compromise its reputation for integrity.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Fines	Business Code of Ethics and bribery and corruption policies and procedures.	<b>No change.</b>	Demonstrate clear progress and achieve defined milestones in relation to HSSE/CR objectives, split into four key categories (Governance, People, Society and the Environment).
Criminal prosecution	Due diligence process and questionnaire developed for assessing potential third parties.	<b>This risk remained static in 2018 due to no reportable instances of fraud, bribery or corruption.</b>	Achieve lagging HSSE indicators set in line with IOGP targets.
Reputational damage	Annual training programme for all employees, contractors and selected service providers.	The Group was awarded licences in new countries deemed high risk for bribery and corruption. A compliance programme will be implemented for each area of operation.	
	Financial procedures in place to mitigate fraud.		

Strategic objective: **Deliver operational excellence**

**Principal risk: Kraken and Catcher operational and project performance**

Owner: Chief Operating Officer

<b>Risk appetite</b>	<b>Low</b> – Delivering operational excellence in all the Group’s activities is a strategic objective for the Group and the Group works closely with all JV partners to mitigate the risk and impact of any operational delay or underperformance. Therefore, the Group has a low appetite for risks which may impact on operating cash flow.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Delay or reduction in cash flow	Work closely with the operator’s to deliver risk mitigation plans and project solutions during ongoing commissioning.  Positive and regular engagement with operators and partners to share knowledge, offer support and exert influence.	<b>Increased risk.</b>  <b>This risk increased in 2018 due to operational challenges on the Kraken FPSO.</b>  Average gross production from Kraken in 2018 was 30,300 boepd, which was below expectations. Production levels were affected by both weather-related incidents, higher water-cut than originally expected and most significantly, by production system outages on the FPSO. Reservoir performance has been evaluated and at year end, Kraken 2P reserves have been reduced to reflect current performance. This has resulted in an impairment in the carrying value of the Kraken asset. The JV is evaluating further investment opportunities in the Kraken area to provide new drilling opportunities, also in 2020.	Ensure production and operating cash flow from Kraken and Catcher are at or within guidance on net production volume and lifting cost per barrel.
Increased operational costs			
HSE incident			
Reputational damage		Gross production from the Catcher Area averaged 43,000 boepd in 2018. This reflected the fields ramp-up to plateau production rates in May and significantly increased plant availability during the second half of the year as final commissioning of secondary systems was completed. As a result, Catcher Area production averaged 69,400 boepd (gross) in November and December, achieving 97 per cent operating efficiency.	



## How We Manage Risk continued

### Principal risks to the Group in 2018-2019

#### Strategic objective: Deliver operational excellence continued

##### Principal risk: Reliance on JV operators for asset performance

Owner: Chief Operating Officer

Risk appetite	<b>Medium</b> – The Group seeks to operate assets which align with the Group's core areas of expertise, but recognises that a balanced portfolio will also include non-operated ventures. The Group accepts that there are risks associated with a non-operator role and will seek to mitigate these risks by working with partners of high integrity and experience and maintaining close working relationships with all JV partners.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Cost/schedule overruns	Actively engage with all JV partners early to establish good working relationships.	<b>No change.</b>	Mature the SNE field development project in Senegal to Final Investment Decision.
Poor performance of assets	Actively participate in technical meetings to challenge, apply influence and/or support partners to establish a cohesive JV view.	<b>This risk remained static in 2018.</b>	Progress the Nova development project against key predefined project milestones.
HSE performance	Application of the Group risk management processes and non-operated ventures procedure.	Oil price volatility continues to have a financial impact across the industry and the risk remains that the Group's JV partners may not be able to fund work programme expenditures and/or reprioritise projects.	Ensure production and operating cash flow from Kraken and Catcher are at or within guidance on net production volume and lifting cost per barrel.
Delay in first oil from development projects	Active engagement with supply chain providers to monitor performance and delivery.	Catcher, Kraken and several exploration projects are operated by joint venture partners. Woodside has also taken over operatorship of the Senegal asset. The Group continues to work closely with a number of other partners in the UK and Norway and Latin America regions.	Demonstrate clear progress and achieve defined milestones in relation to HSSE/CR objectives, split into four key categories (Governance, Society, People and the Environment).
Negative impact on asset value			Achieve lagging HSSE indicators set in line with IOGP targets.

#### Strategic objective: Deliver a sustainable business

##### Principal risk: Access to debt markets

Owner: Chief Financial Officer

Risk appetite	<b>Low</b> – The Group seeks to develop and implement a funding strategy that allows a value generative plan to be executed and ensures a minimum headroom cushion from existing sources of funding is maintained.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Work programme restricted by reduced capital availability	Committed work programme is fully funded from existing sources of finance, principally existing cash balances, operating cash-flows and debt funding.	<b>Increased.</b>	Implement funding strategy to support exploration, appraisal and development activity and to mitigate any downside revenue scenarios.
Loss of value	Disciplined allocation of capital across portfolio.	<b>This risk increased in 2018 due to the potential challenges of achieving a full funding solution in Senegal.</b>	
	Continue to assess other forms of financing and pursue claim for restoration of value for Indian investment.	The reserves based lending facility was refinanced and tenure extended during 2018.	
		Senegal project finance launched in November 2018.	
		The Group has entered a hedging programme for Catcher and Kraken crude.	
		A number of financial institutions and investors have recently made policy decisions to exit oil and gas sector investment. To date, this has not affected Cairn but if this trend accelerates there could be a future impact.	

Strategic objective: **Deliver a sustainable business** continued

**Principal risk: Political and fiscal uncertainties**  
Owner: Chief Financial Officer

<b>Risk appetite</b>	<b>Medium</b> – The Group faces an uncertain macroeconomic and regulatory environment in some countries of operation. The Group is willing to invest in countries where political and/or fiscal risks may occur provided such risks can be adequately managed to minimise the impact where possible.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Loss of value Uncertain financial outcomes	<p>Operate to the highest industry standards with regulators and monitor compliance with the Group's licence, Production Sharing Contract and taxation requirements.</p> <p>External specialist advice consulted on legal and tax issues as required.</p> <p>Maintain positive relationships with Governments and key stakeholders.</p> <p>Ongoing monitoring of the political and regulatory environments in which we operate.</p>	<p><b>Increased risk.</b></p> <p><b>This risk increased in 2018 due to the increased activity or addition of new acreage in countries with higher above ground risk.</b></p> <p>Cairn continues to source new opportunities globally and this can be in jurisdictions deemed at higher risk of political or fiscal uncertainty.</p> <p>The Group acquired new licences in Suriname, Cote d'Ivoire and Mauritania in 2018. The Group will strive for full compliance with licence, Production Sharing Contract and taxation requirements across all assets.</p> <p>The Group has also considered the potential impacts from Brexit and concluded that Cairn will not be materially affected. The Group recognises that there are a number of uncertainties around Brexit, including the potential impact on EU nationals employed by Cairn. The Group continues to monitor the situation closely.</p>	<p>Implement funding strategy to support exploration, appraisal and development activity and to mitigate any downside revenue scenarios.</p>

**Principal risk: Volatile oil and gas prices**  
Owner: Chief Financial Officer

<b>Risk appetite</b>	<b>Medium</b> – Exposure to commodity prices is fundamental to the Group's activities; however, the Group manages its investment programme to ensure that a threshold economic return is delivered and the business model is funded even in sustained downside price scenarios.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Reduction in future cash flow Value impairment of development projects JV partner capital constraints	<p>Sensitivity analysis conducted to assess robustness of Group financial forecasts for funding plan.</p> <p>Operators' cost initiatives delivering material cost reductions on development projects.</p> <p>Exploration projects are ranked based on the probability of commercial hydrocarbons and success case break even oil price.</p> <p>Hedging programme commenced.</p>	<p><b>No change.</b></p> <p><b>This risk remained static in 2018.</b></p> <p>Although oil prices have been more constant in 2018, oil price outlook remains volatile.</p>	<p>Implement funding strategy to support exploration, appraisal and development activity and to mitigate any downside revenue scenarios.</p>



## How We Manage Risk continued

### Principal risks to the Group in 2018-2019

#### Strategic objective: **Deliver a sustainable business** continued

##### **Principal risk: Inability to secure or repatriate value from Indian assets**

Owner: Chief Financial Officer

Risk appetite	<b>Medium</b> – The Group faces an uncertain macroeconomic and regulatory environment in some countries of operation. The Group is willing to invest in countries where political and/or fiscal risks may occur provided such risks can be adequately managed to minimise the impact where possible.		
Impact	Mitigation	2018 movement	2019 KPI objectives
Loss of value	<p>Arbitration hearings were held in August in The Hague and involved testimony by expert and fact witnesses and addressed Cairn's claims under the UK-India Bilateral Investment Treaty, India's defences and issues of jurisdiction.</p> <p>Continued engagement with the Indian Government.</p> <p>Committed work programme is fully funded from existing sources of funding, excluding proceeds from the India claim, principally Group cash and committed debt facilities.</p>	<p><b>No change.</b></p> <p><b>This risk remained static in 2018. The Indian Income Tax Department has continued to enforce its retrospective tax claim against Cairn whilst the Treaty arbitration has been ongoing.</b></p> <p>All submissions and procedural steps for the international arbitration under the UK-India Bilateral Investment Treaty (the 'Treaty') are now complete.</p> <p>Drafting of the final award by the Tribunal is ongoing.</p> <p>Cairn's claim under the Treaty is for monetary compensation of ~US\$1.4 billion, the sum required to reinstate the Company to the position it would have been in, but for the actions of the Indian Income Tax Department since January 2014.</p> <p>In March 2019, the panel advised that the timetable for issuing the award will be more protracted than originally anticipated and is unlikely to be before late 2019.</p> <p>Cairn continues to have a high level of confidence in the merits of its claims in the arbitration.</p>	<p>Progress the UK-India Bilateral treaty arbitration to conclusion and receipt of awarded sums in event of success.</p>

**Financial Review**

James Smith, Chief Financial Officer



# Sustainable production and cashflows

**Production**

2018 marked the first full year of production from the Group's two UK North Sea producing assets. Production on Kraken commenced in June 2017 and Catcher came on stream late December 2017. During 2018, daily gross production volumes on both assets have increased significantly, with Kraken averaging 30,300 boepd and Catcher 43,000 boepd across the year. Combined production for 2019 is expected to average 19,000 – 22,000 boepd net to Cairn, before adjusting for the FlowStream entitlement.



## Financial Review continued

### Key Statistics

	2018
Production – net working interest share (boepd) <sup>1</sup>	17,533
Sales volumes (boepd) <sup>2</sup>	15,946
Average price per boe – pre hedging (US\$) <sup>3</sup>	67.99
Revenue from production (US\$m)	395.7
Average production costs per boe (US\$) <sup>4</sup>	20.49
Depletion and amortisation costs per boe (US\$)	26.75
Net cash inflow from oil and gas production	228.9
Net cash inflow from operating activities	209.0

- 1 Based on 29.5% of Kraken production during the period and 20% of Catcher production during the period, before deducting FlowStream's entitlement to Kraken volumes during the year of 1,360 boepd.
- 2 Working interest share of cargoes sold during the period, net of FlowStream entitlement.
- 3 Excluding hedging costs of US\$1.34/boe.
- 4 Production costs include cost of sales plus finance lease repayments on the Kraken FPSO.

Production – net working interest share  
(boepd)

17,533

Revenue from production

US\$395.7m

Net cash inflow from oil and gas production

US\$228.9m

#### Revenue

Revenue from the sale of oil and gas was US\$387.9m for the year ending 31 December 2018, after adjusting for hedging transactions. Release of deferred revenue of US\$21.2m and royalty income in Mongolia of US\$12m, gives total revenue to US\$410.3m.

At 31 December, Cairn had hedged ~2.7 mmbbls of forecast production through 2019 using collar structures with a weighted average floor of US\$671 per bbl and an average ceiling of US\$831 per bbl and a further ~0.5 mmbbls of 2020 forecast production with a floor and ceiling of US\$675 and US\$875 per bbl respectively. With a year end oil price of US\$50.7 per bbl, the fair value of the hedge options held by Cairn has increased significantly at the year end giving rise to financial assets of US\$44.4m at the balance sheet date with unrealised gains of US\$43.9m recorded through other comprehensive income, offset by losses on settled options.

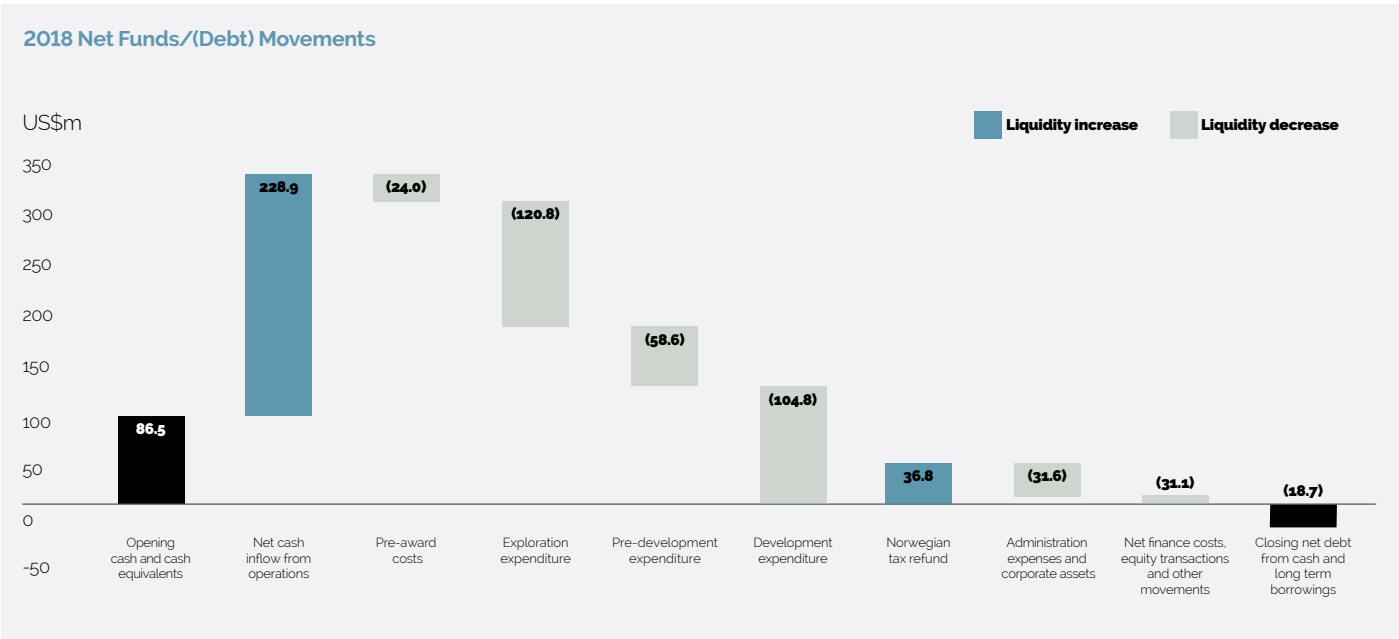
#### Cost of sales

Total production costs of US\$131.4m include US\$59.5m of operating and variable lease payments on the Catcher and Kraken FPSOs respectively. All Catcher lease payments are charged direct to production costs as operating lease charges. Following acceptance of the Kraken FPSO in H2 2018, lease payments are separated into variable and fixed components, with the latter being calculated based on minimum charges in the lease agreement and being deducted against the lease liability on the Balance Sheet. If all lease payments are included as operating costs, production costs were US\$20.49/boe. Effective 1 January, Cairn will adopt IFRS 16 resulting in recognition of Catcher minimum lease commitments as an asset and liability on the Balance Sheet, aligning the accounting with that of the Kraken FPSO.

Movements in oil inventory and underlift positions, measured at market value, of US\$77m were charged against cost of sales in the period. The Group's accounting for revenue and the classification and measurement of underlift is unaffected by the implementation of IFRS 15.

Depletion and amortisation charges in the year were US\$171.2m calculated on a unit-of-production basis on closing year end reserve estimates.

Net cash inflow from operating activities and cash generated from oil and gas production



- 1 Net cash flow from operations includes cash flows from sale of oil and gas and includes all lease payments (including US\$7.4m repayment of the Kraken FPSO lease liability) and excludes the tax refund on operating activities.
- 2 Exploration expenditure represents investing cash outflow of US\$188m excluding US\$58.6m of pre-development spend on Nova and SNE assets disclosed separately and offset by US\$3.6m exploration asset disposal proceeds and US\$5m of other operating income.
- 3 Development expenditure includes investing cash outflows of US\$109.5m net of finance lease reimbursements of US\$4.7m.
- 4 Cash balances of US\$66.3m less drawings under the Reserve-Based Lending facility of US\$85m.

Net cash inflow from operating activities for the year of US\$209.0m reflects net cash generated from oil and gas sales after deducting administrative costs and pre-award costs. Adding back these expenses leads to a net cash inflow from oil and gas production of US\$228.9m in the year.

Cairn had net debt of US\$18.7m at 31 December 2018, representing a net cash outflow of US\$105.2m over the year. Borrowings under the Group's RBL facility at 31 December 2018 were US\$85m, all drawn in the year, before adjusting for unamortised facility fees and accrued interest for disclosure in the Financial Statements. Closing net cash and long-term borrowings presented above exclude US\$26.2m drawn under the Norwegian Exploration Finance Facility which are advances secured against tax refunds due

from the Norwegian government and are not a true reflection of the Group's long-term indebtedness.

In December 2018, Cairn completed the extension of the maturity of the Group's US\$575m RBL facility to 2025, increasing the borrowing base to include the Nova development in Norway. Though the terms of the extended facility are consistent with that of the original, under IFRS 9 the extension is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability due to the extended period over which the facility is available. Arrangement fees associated with the original facility, which was put in place in 2014, have been fully amortised in the year. The Exploration Finance Facility in Norway was also extended

in December 2018, but the application of IFRS 9 has no material impact.

Cash outflows on exploration expenditure in the year included UK & Norway costs of US\$41.3m relating to the Tethys, Raudåsen and Agar-Plantain wells in Norway and US\$26.1m of pre-development activities on Nova prior to approval of the development plan and subsequent transfer of costs to development assets. Senegal costs of US\$38.1m include US\$32.5m of pre-development exploitation costs. Transfer of operatorship of the Senegalese licences to Woodside concluded in December.

Development and producing asset cash outflows in the year related to costs on Kraken, Catcher and Nova.

## Financial Review continued

### Oil and Gas Assets

Analysis of additions by region is as follows:

	US\$m
Senegal	4.2
UK & Norway	76.3
International	17.7

#### Exploration and appraisal additions 98.2

Senegal	24.3
Nova costs pre-transfer	25.9

#### Pre-development additions 50.2

Norway – Nova	13.6
UK – Catcher and Kraken	42.9

#### Development additions 56.5

Pre-development additions relate to the SNE asset currently classified in exploration and appraisal assets and Nova which was transferred to development/producing assets

during the year. These costs are included in exploration and appraisal additions though they relate to work on the exploitation plan and development of the field. Costs are only included within development and producing assets in the Financial Statements once the field development plan has been approved.

In the UK & Norway, costs incurred in the year on the Tethys, Raudåsen, Ekland and Agar-Plantain wells were US\$58.2m with a further US\$18.1m of additions across the remaining exploration licences in the portfolio.

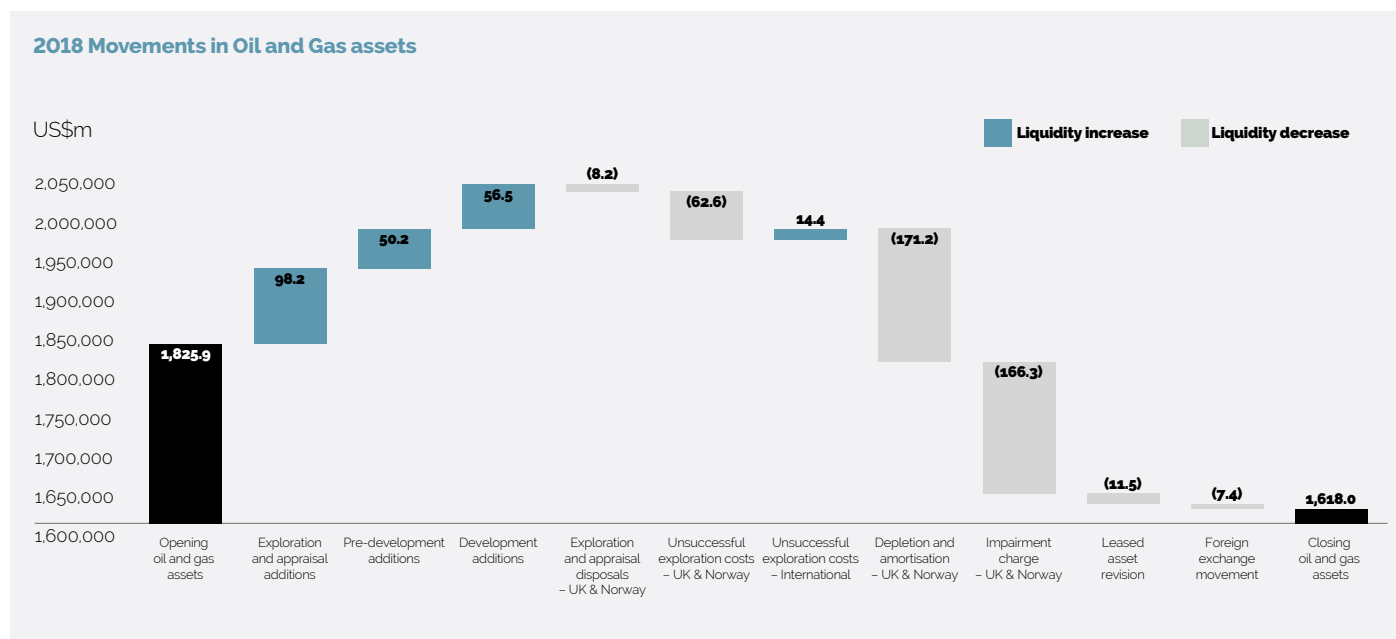
Total costs of US\$39.5m were incurred on the Nova field during the year. US\$25.9m are included in exploration and appraisal assets and a further US\$13.6m in development and producing assets after formal approval of the development plan was received.

Remaining development and producing asset additions in the year of US\$42.9m on Kraken and Catcher include the release of accruals for rig costs relating to Kraken of US\$23.0m following renegotiation of the rig contract early in 2018.

### Impairment charge

At year end, Cairn has reviewed its exploration and appraisal and its development and producing assets for indicators of impairment and performed impairment tests where indicators were identified. With up to 18 months of performance history now available, the remaining oil and gas reserves and production profiles have been reassessed, resulting in an impairment charge of US\$166.3m arising on the UK Kraken asset. No impairment charge has been recognised in relation to the Catcher asset.

The Group's oil price assumptions remain based on the Brent forward curve for the first three years of the forecast period, followed by US\$70 per barrel long term. Sensitivity analysis included in the Financial Statements includes down-side oil price sensitivities across all development and producing assets and down-side production volume sensitivities run on the Kraken asset.





Results for the year – Other operating income and expense

Other operating income and costs, administrative expenses and net finance costs.

	Year ended 31 December 2018 US\$m	Year ended 31 December 2017 US\$m
Pre-award costs	(25.4)	(43.8)
Net unsuccessful exploration costs	(48.2)	(60.7)
Administrative expenses and other income/costs	(49.9)	(30.3)
Related tax credits	41.1	25.4
<b>Net operational and administrative expenses</b>	<b>(82.4)</b>	<b>(109.4)</b>
Finance income net of provision	19.2	(27.7)
Finance costs	(37.8)	(10.4)
<b>Net finance costs</b>	<b>(18.6)</b>	<b>(38.1)</b>

Pre-award costs reflect the increase in Cairn's portfolio of assets, with further acreage added in the UK & Norway and new country entries agreed in Cote D'Ivoire, Mauritania and Suriname.

Unsuccessful exploration costs of US\$63.6m, primarily relating to the UK & Norway region, include costs written off on Tethys, Raudåsen and Ekland unsuccessful wells of US\$50.4m and US\$8.0m on the Sunbeam licence where the commitment for an exploration well has been transferred and no further exploration activities are planned. These were offset by a US\$15.4m credit following the release of accruals relating to relinquished licences in Morocco.

Higher administrative costs resulted principally from increased costs relating to the Indian tax arbitration, brought under the UK-India Bilateral Investment Treaty, for which the final hearings took place in The Hague during the year. Total costs, charged to the Income Statement, associated with the India tax arbitration were US\$22.9m and included legal fees for submissions and the hearings as well as associated costs (2017 Indian tax arbitration costs were US\$8.1m, principally relating to legal costs for pre-hearing submissions made in that year). Remaining administrative costs of US\$27.5m have increased by US\$2.9m year-on-year, giving total administrative costs of US\$50.4m for the year.

Finance income includes exchange gains in the current year of US\$17.2m. Finance costs in the period include loan interest and facility fees on the Group's RBL facility and Exploration Financing Facility of US\$24.4m and finance lease interest of US\$7.8m.

Related tax credits reflect Norwegian current tax refunds receivable on qualifying exploration and administrative expenses.

**Gains and losses on Financial Asset – investment in Vedanta Limited**

The sale of the Group's shares in Vedanta Limited in the year, instructed by the IITD, resulted in a loss on derecognition of US\$713.1m following seizure of the proceeds. The resulting tax liability on the sale, for which Cairn remains liable, has been sheltered by available losses. Cairn retains an immaterial shareholding in Vedanta Limited, with a value of US\$6.9m at 31 December 2018.

Dividends declared by Vedanta Limited and due to Cairn in the period of US\$67m, which were also seized by the IITD, are not recorded in the results for the year. Total dividends seized by the IITD are now US\$164.2m.

Following the adoption of IFRS 9 'Financial Instruments' Cairn's investment in Vedanta Limited is now classified as a financial asset at fair value through profit or loss and therefore all periodic fair value gains and losses are reflected through the Income Statement rather than other comprehensive income. In the current year, a fall in the market value of

Vedanta Limited has resulted in a US\$352.2m charge to the Income Statement. Comparative results, including a 2017 full year gain of US\$449.1m, have been restated to reflect adoption of the new standard.

Under the UK-India Bilateral Investment Treaty, Cairn is seeking compensation for losses resulting from the seizure by India in 2014 of Cairn's investment in Cairn India Limited (which subsequently became the investment in Vedanta Limited).

**Taxation**

During 2018, Cairn made a UK ring fence profit in the period which was fully offset by brought forward losses. At 31 December 2018, Cairn had total UK ring fence losses of US\$928.3m. US\$810.3m of ring fence tax losses are recognised as deferred tax assets (at the applicable tax rate of 40%) to fully offset deferred tax liabilities of US\$243.1m. The remaining ring fence tax losses of US\$118.0m, available supplementary charge tax losses of US\$855.9m and the deferred tax impact of the decommissioning liability represent an unrecognised deferred tax asset of US\$168.0m at 31 December 2018.

A cash tax refund is receivable in Norway in respect of 78% of qualifying exploration and overhead spend. US\$32.8m of tax refunds are recorded for amounts receivable relating to the current period. Norwegian deferred tax liabilities at 31 December 2018 of US\$66.5m reflect timing differences on the carrying value of exploration assets where either a tax refund has been claimed or an uplift is available on capital spend.

The sale of the majority of the Group's interest in Vedanta Limited, instructed by the IITD, has not led to a taxable capital gain either in India or the UK at the price range achieved. The reduction in the Vedanta Limited shareholding, together with movements in the share price have led to a full reversal of US\$89.4m of the opening deferred tax liability in respect of the shareholding.

## Working Responsibly



**Working responsibly** means having the right **values, principles** and **policies** in place to deliver **lasting, positive social environmental and economic benefits.**

We operate to industry-leading standards in health, safety, security and environmental (HSSE) management and corporate social responsibility.

**Working responsibly is part of our strategy**

Ensuring we work responsibly is embedded in the way we run our business. In delivering our strategy, we annually measure our performance against a series of Key Performance Indicators (KPIs). There are elements of working responsibly in each of those KPIs, with one of them, Maintain Licence to Operate, dedicated to it.

To help us achieve the Maintain Licence to Operate KPI, we set annual Corporate Responsibility (CR) Objectives. Our CR Objectives were approved by the Board and grouped under four themes: Governance; Society; People; and Environment.

To ensure we are working responsibly, we continually assess the material issues under these four themes. We do this through our risk management process, which identifies the issues that are most important to our business, and through **stakeholder engagement** (see page 14), which identifies those of greatest significance to our stakeholders. Through our Group **risk management framework** (see page 32), we regularly review how our risks are managed, and record them in corporate, operational and project risk registers.

The risk registers and stakeholder feedback are the two main sources we use when determining our material issues.

**Prioritising our material issues**

Understanding and prioritising the issues that matter to our business and to our stakeholders enables us to address the most relevant topics.

In May 2018, we engaged an external independent consultant to review our materiality process. This involved:

- revisiting general reporting requirements from the Financial Reporting Council (FRC) and the London Stock Exchange;
- considering industry-specific guidance from the Global Reporting Initiative (GRI), Sustainable Accounting Board Standard (SASB) and IPIECA; and
- comparing our approach with that of 10 peer companies.

The review identified areas in our assessment process that were potentially leading to the reporting of issues that were not necessarily of high materiality, alongside those which were. To address this, an adapted methodology was developed and tested. Following a preliminary assessment of issues by the consultant, staff around the organisation were asked to feed in their perceptions of key issues from different stakeholder perspectives at a workshop. This was used to inform and validate the updated materiality assessment process.



Contracted drilling rig for UK and Norway operations, 2018



Working Responsibly continued

19 issues of high materiality were identified in 2018

Materiality methodology and analysis

In previous years, we looked at materiality under four themes: Business Relationships; Society and Communities; People; and Environment. In 2017 under these themes, we reported on 15 topics, covering a wide range of issues. These were plotted on a materiality matrix showing both 'importance to stakeholders' and 'importance to Cairn'.

In 2018, we rationalised these themes – now titled **Governance**, **People**, **Society** and **Environment** – and identified 57 issues of potential importance to both Cairn and our stakeholders. 19 of these were assessed as high materiality to both Cairn and our stakeholders.

We also now assess 'importance to stakeholders' across five different stakeholder groups (investors, governments, employees, local community/interest groups and business partners/peers). Importance to Cairn is assessed based on risk and in line with our risk register, which is updated quarterly.

Materiality matrix

Theme

Governance

People

Society

Environment

Materiality

High materiality

Medium materiality

Low materiality

Importance to Cairn (based on risk)

High					
Significant			<div>- Workplace Health and Well-Being</div> <div>- Human Capital Development</div> <div>- Office Security</div>	<div>- Business Partner Alignment</div> <div>- Tax and Payments to Govs</div> <div>- Funding</div> <div>- Investment</div> <div>- JV Partner Funding</div> <div>- Gov ABC</div> <div>- Contractor Selection</div> <div>- Security of Personnel</div> <div>- Asset Security</div> <div>- Local Community Stakeholders</div> <div>- Demonstrating Value and Measuring Impact</div> <div>- Working Conditions/T&amp;Cs</div>	<div>- ABC Practices</div> <div>- Major Accident Prevention</div> <div>- Security &amp; Human Rights</div>
Medium			<div>- Infectious Diseases</div> <div>- Workplace Culture and Employee Leadership</div> <div>- Talent Attraction</div> <div>- Freedom of Association</div> <div>- Modern Slavery</div>	<div>- Ops. in Sensitive Environments</div> <div>- Remuneration</div> <div>- Contractor ABC</div> <div>- Anti-discrimination (employees)</div> <div>- Equal Pay, Equal Opportunity</div> <div>- Indigenous Peoples Rights</div> <div>- Local Labour Development</div> <div>- Economic &amp; Physical Displacement</div> <div>- Local Content</div> <div>- Local Energy Access</div> <div>- Other Emissions</div> <div>- Discharges to Water and Land</div> <div>- Biodiversity and Sensitive Areas</div>	<div>- Climate Change Policy and Planning</div> <div>- Global Energy Transition</div> <div>- Workplace safety</div> <div>- GHG, Flaring and Venting</div>
Low		<div>- Ineffective Whistleblowing</div> <div>- Materials Use</div> <div>- Energy Use and Alternative Sources</div> <div>- Environmental or health impact from product sales</div>	<div>- Advocacy &amp; Lobbying</div> <div>- Data Protection</div> <div>- Cultural Heritage</div> <div>- Grievances</div> <div>- Water Abstraction and Use</div> <div>- Use of Local Resources</div>	<div>- Corporate Governance</div> <div>- Management of Risks</div> <div>- Community Health</div> <div>- Social Investment</div> <div>- Reduce, Recycle and Waste Management</div>	
Insignificant	<div>- Anticompetitive Behaviour</div>		<div>- Anti-discrimination (non-employees)</div>		
	Insignificant	Low	Medium	Significant	High

Importance to stakeholders

# Governance

Strong corporate governance and effective risk management are vital if we are to remain a sustainable, successful business. With this in mind, we have developed a comprehensive framework of business policies, systems and procedures that enable us to assess and manage risk effectively.

**Governance**  
Issues covered  
in this section:

**Ethics**  
Climate change policy and planning  
Business partner alignment on CR issues

**Transparency**  
Tax and payments to governments

**Economics and Funding**  
Funding  
Global energy transition  
Investment  
JV partners and funding

**Anti-Bribery and Corruption**  
Anti-bribery and corruption practices  
Governments and authorities practices

 Read more: Materiality Matrix on P48

**Ethics**  
Our ability to do business depends on the trust of our stakeholders, including investors, governments, business partners, suppliers and broader society. This means that we need to work in an ethical and transparent way.

When selecting and working with business partners, we pay particular attention to the application of our Code of Ethics and compliance with the requirements of the Modern Slavery Act and the Equality Act. Our integrated audit plan assesses supply chain risks for all projects, with a focus on modern slavery, anti-bribery and corruption, and HSSE. All partners receive copies of our policies and our Code of Ethics, and must agree to adhere to them. See our CR report [www.cairnenergy.com/working-responsibly](http://www.cairnenergy.com/working-responsibly) for more information.

US\$32.6m  
payments to governments

**Transparency**  
We aim to make a positive contribution to our people, the communities in which we operate and society in general. This includes the value distributed through salaries, taxes, share dividends and payments to authorities, contractors and suppliers, as well as capital spending and social investment.

As a listed public company, we report annually in line with UK regulations, and respond to all queries and requests for information from investors, financial analysts, shareholder representatives and other concerned stakeholders.

The investors section on our website provides relevant, up-to-date information, including details of our Group Tax Strategy. We also report transparently on payments to governments, in compliance with EU legislation and as part of our voluntary commitment to the Extractive Industries Transparency Initiative (EITI).

**Economics and funding**  
Working responsibly is an important factor in maintaining access to funding. Increasingly, investors are asking us to demonstrate our responsible working culture and practices when making investment decisions.

We recognise the increasing pressure on our industry to improve performance within a challenging business environment. Volatile oil prices continue to be a principal risk, so efficient capital allocation is vital. However, the need to improve cost efficiency never compromises our operating standards.

0  
incidents of non-compliance with the Code of Ethics

**Anti-bribery and corruption (ABC)**  
Taking a clear stand on ethical matters is the key to delivering value, building trust and maintaining our licence to operate. Our zero-tolerance position on fraud, bribery and corruption continues to attract scrutiny from a wide range of stakeholders and could affect our reputation, our ability to access funding, and our impact on people and communities.

In 2018, we developed an ABC training module for staff working in high-risk countries; it was first delivered in November 2018. Since then, we have added a new e-learning module on our integrated Code of Ethics, which includes ABC training on metrics issues.

We encourage employees to report any incident of concern by speaking directly to their regional director. Whistleblowing charity Public Concern at Work also offers a confidential phone line for staff to use.



34%  
of employees trained in Cairn's anti-corruption policies and procedures

## Working Responsibly continued

## Governance continued

Case study: Governance

### Auditing and updating our Corporate Responsibility Management System (CRMS)

We subject our CRMS to an annual audit. In 2018, this included a re-verification of the environmental component against OSPAR<sup>1</sup> recommendation 2003/5, a requirement for operating in the United Kingdom Continental Shelf (UKCS) and the Republic of Ireland.

The report, and subsequent action plan to address the one finding (to increase communication with the Board on improvements to the CRMS) and four other observations, were accepted by the auditor and submitted to the UK regulator, the Department of Business Energy and Industrial Strategy (BEIS).

We also commissioned an external gap analysis of the CRMS against ISO45001:2018, the latest 'Occupational Health and Safety Management Systems – Requirements' standard. The analysis, produced in August 2018, highlighted four observations. An appropriate action plan was developed for implementation in 2019.

<sup>1</sup> OSPAR is the mechanism by which 15 European governments and the EU cooperate to protect the marine environment of the North East Atlantic. OSPAR is named after the original Oslo (OS) and Paris (PAR) Conventions.



Global energy transition; climate change, policy and planning

Whilst climate change is assessed as medium importance to Cairn, we recognise it as an emerging risk. Nevertheless we assess climate change as a high materiality issue because of its high importance to stakeholders.

Emerging risks from climate change

Our approach to climate change continues to include measuring and reporting our GHG emissions, and the promotion of efficient energy use in our activities. In addition, we consider the risks and opportunities associated with our projects, and build climate change considerations into investment decisions.

We also engage with stakeholders on mitigation and adaptation measures through industry associations, as well as contributing to local programmes that address environmental and social impacts.

Global energy demand and transition

The International Energy Agency (IEA) World Energy Outlook 2018 (<https://webstore.iea.org/>) suggests that global energy use could increase by more than 25% between 2015 and 2040. Apart from coal, the consumption of all other fuel sources will increase over that period, even with the significant growth in renewables needed to meet the 2°C climate target committed to under the Paris Agreement<sup>2</sup>. As oil and gas will remain a major energy source for many years to come, we have a significant role to play in helping to meet affordable, sustainable energy demand during the transition to a low-carbon economy.

Potential climate change risks and opportunities

With our GHG emissions mainly relating to exploration activities (see page 60), we consider the main risks associated with climate change to be longer term, strategic

corporate issues (read more about emerging risks on page 34). We continually challenge our thinking and assess the risks of significant disruption and uncertainty in our sector. By contrast, we also recognise that opportunities can arise from, for example, the potential of gas as a transition fuel and the future role of carbon capture and storage (CCS).

**Managing financial risks:** While we have seen some financial institutions reduce or remove their commitment to hydrocarbon investment in the last year, this does not detract from the economic or social viability of our projects. During 2018, an external consultant completed a specialist resilience review of our portfolio against selected climate change scenarios, considering value creation under a variety of conditions. The results suggest that our existing production (non-operated) and planned development assets create value in a carbon-constrained world, with all assets remaining NPV positive under the range of scenarios tested. The review also indicated that our existing hydrocarbon price stress testing uses more challenging scenarios than those presented by the climate change scenarios.

**Managing regulatory risks:** Through our Project Delivery Process, we determine the requirements of the jurisdictions under which we operate, such as understanding existing legislation and assessing the planned commitments under country NDCs (Nationally Determined Contributions); these included Suriname, Mauritania and Côte d'Ivoire in 2018. In the UK, we updated the Board on the status of our (non-operated) Catcher and Kraken assets under the EU Emissions Trading Scheme Regulations, and looked at preparedness for making submissions under the UK Energy Saving Opportunity Scheme (ESOS) Phase II.

**Managing physical and social risks:** If facilities and infrastructure are adversely impacted by extreme or changing environmental conditions, this can increase operational downtime and costs, reduce revenue and increase safety risks. The reduced availability of natural resources such as water could also impact project continuity, social unrest and the expectations of local stakeholders. We gained further insight from the latest predictions on the potential physical risks arising from climate change at a joint IOGP/JCOMM/WCRP workshop<sup>3</sup>.

In 2018, we focused on evaluating these strategic risks and opportunities, and developing a robust position to communicate with our shareholders and other stakeholders.

Monitoring change and transparency

In 2019, we will build on our recent resilience review by developing a monitoring dashboard. This will help us to monitor changes and developments regarding climate change, and keep the Board informed.

By operating in more heavily regulated territories such as the UK and Norway, we need to comply with new statutory regulatory reporting requirements. We continue to monitor other corporate governance developments, such as specific requirements or recommendations from the FRC and the Task Force on Climate-related Financial Disclosures (TCFD).

 Read more: **How we Manage Risk on P32**  
 Read our **CR Report** at [www.cairnenergy.com/working-responsibly/](http://www.cairnenergy.com/working-responsibly/)

<sup>2</sup> Countries across the globe adopted a historic international climate agreement at the UN Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP21) in Paris in December 2015. The long term goals of the Paris Agreement are to hold the increase in global average temperature to well below 2°C, to pursue efforts to limit the increase to 1.5°C and to achieve net zero emissions in the second half of the 21<sup>st</sup> century.

<sup>3</sup> International Association of Oil and Gas Producers (IOGP)/Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM)/World Climate Research Programme (WCRP): Our Future Climate – Executive Summary. Understanding the spread of physical risks for the oil and gas industry, September 2018.

Working Responsibly continued

People

We rely on our team's commitment, talent and knowledge to deliver our strategy safely on a daily basis. As well as promoting a high-performance culture based on opportunity, equality and diversity, we prioritise procedures and policies designed to avoid accidents and incidents, and to respond to emergency events should they occur.


**People**  
Issues covered  
in this section:

**Safety**  
Workplace safety

**Asset Integrity and Major Accident Prevention**  
Major accident prevention

**Contractors**  
Contractor selection

**Security**  
Security personnel and travel  
Security of assets

 Read more: Materiality Matrix on P48

This section addresses health and safety, preventing major accidents, security and our relationships with contractors and suppliers. For more information on our people strategy, values and High Performing Behaviours, please see Our People: Driving Value on page 62.

**Workplace safety**  
Providing a safe working environment is a core corporate responsibility, and minimising risks to people and the environment is of paramount importance to us. Managing safety hazards involves several safe working procedures, including management visits, audits, a permit-to-work system, toolbox talks and safety drills. The importance of safety management by our contractors is vital and we actively engage with them to ensure that effective systems are in place.

Although we have limited direct exposure to potentially hazardous chemicals and wastes, we still have robust requirements for chemical and waste management in our CRMS, to protect human health and the environment. We ensure compatible arrangements from our contractors.

Case study: People

**Major accident prevention policy**



Our Corporate Major Accident Prevention Policy (CMAPP) strengthens our commitment to avoiding major accidents and mitigating risks.

Required under the EU Offshore Safety Directive, it was introduced in October 2017 and is a pre-requisite for our licence to operate in the UKCS and Ireland. As part of our preparations for drilling an exploration well in the Ekland block, it was revised and resubmitted to the regulators (HSE/BEIS) in July 2018.

CMAPP places a greater emphasis on:

- Managing Safety and Environment Critical Elements (SECEs), and preventing a major incident through robust control and maintenance mechanisms;

- Demonstrating and verifying the high levels of competency required among our staff and contractors, and conducting appropriate training and succession planning to maintain capability; and
- Transparent assurance processes covering document control, data management and storage.

A new Group-wide CMAPP training programme for employees will begin in early 2019.

In 2018, we reviewed and revised our CRMS (see page 50) in relation to ISO45001, the standard for occupational health and safety management systems. We will implement our findings during 2019.

We support all staff who may be exposed to health risks such as infectious diseases through their work, either where we have assets or during visits to prospective business locations. We perform risk assessments to identify and reduce health and other risks before travel, and have improved our Traveller Health and Security intranet site.

**Security**

We have a duty of care to our people and we place high importance on protecting our assets, investments, reputation and data. We continue to monitor and respond to emerging threats, acting on intelligence received from embassies, civil authorities and contractors. We participate as a member of the IOGP Security Committee.

As well as monitoring the security situation in existing locations such as Mexico and Senegal, we also look at threats in potential countries of interest. With an active New Ventures team, we are visiting several locations in Latin America, West Africa and north-west Europe for the first time. Our due diligence process requires us to assess and address the risks our people may face, both before they travel and while they are away.



On board the ENSCO 101 drilling rig, UK

Case study: Major Accident Prevention

**Improving our  
emergency  
response  
capability**



To ensure we respond quickly and effectively to a major accident or incident, we have Incident Management Teams (IMTs) in place in all our operational locations. In addition, our Crisis and Emergency Response Team (CERT) in Edinburgh provides both strategic and tactical support, depending on local capability.

In preparation for drilling our UK Ekland well, we engaged a specialist provider, Restrata, to provide our IMT, given their knowledge and expertise within the UK sector. Restrata provided an Incident Management Centre in Aberdeen, approved by the UK Secretary-of-State-Representative (SOSREP). Restrata's team was on call to coordinate tactical emergency response during the Ekland drilling programme and liaise with the drilling contractor's (Ensco) emergency response team and our CERT, should the need arise. However, there were no incidents that required the teams to be called out during our programme.

In 2018, our CERT team undertook a programme of five crisis management and emergency response exercises. Three sessions were specifically designed to prepare for our Ekland

operations in the North Sea, one of which involved Police Scotland and our drilling, helicopter and shipping contractors. We involved both the Restrata IMT and the drilling contractor's emergency response teams.

The exercises were designed to enhance organisational resilience by testing communication routes, facilities and equipment, contingency plans and assumptions. Observations and recommendations were logged and tracked until they were subsequently addressed.

These are supplemented by online self-training modules for each role within CERT, and weekly refresher sessions covering a range of scenarios, including earthquakes, pandemics and business continuity.

**"Our programme of crisis management and emergency response exercises ensures that we remain ready, competent and confident in our ability to respond to any incident, wherever it may occur. By understanding how key partners and stakeholders work, everyone can think and act as one cohesive team, ensuring that we meet Cairn's high-performing safety behaviours and values."**

Matt Smith, Health, Safety and Energy Adviser, Cairn



Working Responsibly continued

People continued

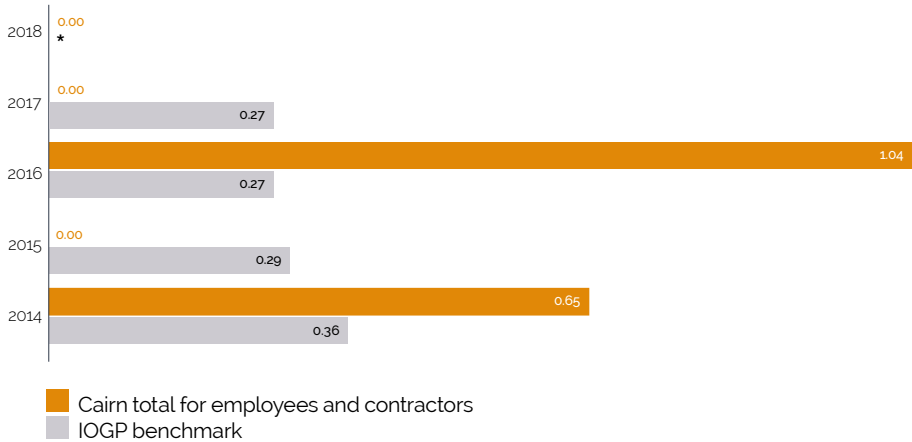
Contractors

Representing a significant proportion of our workforce, contractors and our relationships with them are fundamental to the success of our business. We continue to rely on high-quality suppliers to provide the expertise, equipment and services that make

up much of our operational capability. We focus on building strong working relationships with contractors who share the principles and standards we support. While contractors are usually international companies, we continue to promote and use local services wherever we can.

“There were no Lost Time Injuries or Recordable Incidents, or any oil spills, during the Ekland campaign, which ran from July to September 2018.”

Lost Time Injury Frequency (LTIF)  
(Lost time injuries per million hours worked)



In 2018, our main use of local contractors focused on the Ekland well drilled in the UK. There were no Lost Time Injuries nor Recordable Incidents, nor any oil spills, during the drilling campaign, which ran from July to September 2018.

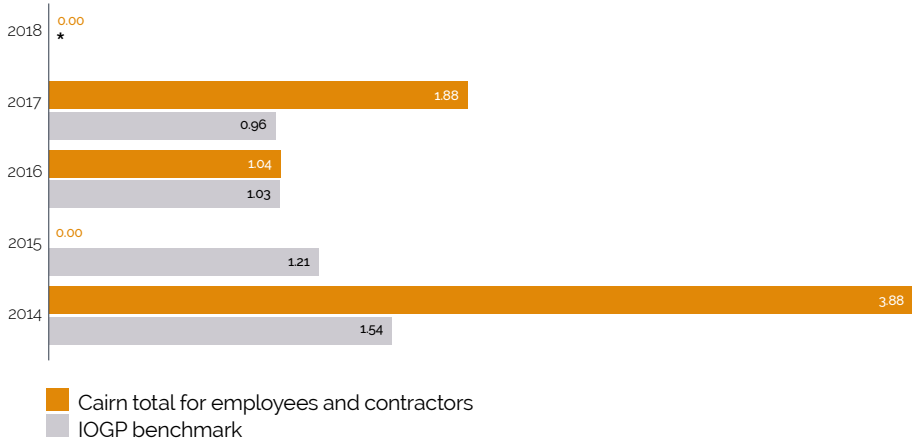
During 2018, we progressed with the selection of key contractors for 2019 drilling projects in the UK, Norway and Mexico.

Contractor selection

Because we need our contractors to share our beliefs and meet our standards to maintain our licence to operate, effective selection by Cairn, and good performance by our contractors, are vital. All contractors are selected on the basis of adherence to our principles and standards, experience, service capability, competence and competitiveness.

To ensure that all our activities conform to our CRMS and Cairn Operating Standards (COS), we use an integrated contractor and supply chain audit plan. The plan identifies corporate and operational risks, and develops an assurance and audit programme to demonstrate effective controls are in place across systems and processes, as well as on individual rigs and vessels.

Total Recordable Injury Rate (TRIR)  
(Total recordable injuries per million hours worked)



Notes:  
IOGP is the International Association of Oil and Gas Producers. We have included overall IOGP benchmark figures (average of onshore and offshore for employees and contractors).  
\* IOGP benchmark figures are not yet available for 2018.

Cairn TRIR and LTIF statistics can be higher than the IOGP benchmark after only one incident, or a small number of incidents, because our exploration activities often last for only a short time period, so there are relatively few hours worked compared with on-going production and other long term operations.

40%  
of our workforce were contractors



Case study: People  
**Contractor selection**

For many projects, we have used Achilles' First Point Assessment Limited (FPAL) database as a pre-selection tool for identifying reliable contractors across Europe.

Given FPAL's widespread appeal, we are working to establish a similar system for our operations in Senegal: the African Partner Pool. Suppliers can register their interest in tenders, training and finance opportunities through this new portal being developed by the non-governmental organisation (NGO) Invest in Africa (IIA). IIA was set up four years ago to help small suppliers, initially in Ghana, to build skills and capacity, attract investment and provide credible services to the emerging oil and gas industry. This also helps local contractors to access our and other operators' projects, promoting local capabilities and high standards.

Capricorn Senegal Limited, our operating subsidiary in Senegal, is a founding member of IIA in Senegal, along with joint venture partner Woodside.



North Sea drilling operations supported from Aberdeen port

Working Responsibly continued

Society

While we seek to make a positive difference to society, we also recognise that we must manage and mitigate any potential risks.

**Society Issues covered in this section:**

**Communities**  
Local community stakeholders (and stakeholder engagement)

**Social and Economic Benefits**  
Demonstrating value and measuring impact

**Human Rights**  
Working conditions/T&Cs  
Security and human rights

 Read more: Materiality Matrix on P48



Visiting The Hunger Project, Senegal

Demonstrating value and measuring impact

We look at impacts beyond our direct community to our broader social and economic contributions to the countries that host our activities. We use the UN

Sustainable Development Goals (SDGs) as a guiding framework for developing Impact Benefit Plans, such as the one for Senegal outlined in the table below. More detail is available in our CR report. [www.cairnenergy.com/working-responsibly/](http://www.cairnenergy.com/working-responsibly/)

Contributing to the UN Sustainable Development Goals in Senegal (UN SDGs)

Sustainable Development Goal	Social and Economic Benefits in Senegal	
	End poverty in all its forms everywhere.	Through a pilot project with The Hunger Project (THP) designed to drive community-led development, we are supporting around 22,000 fishermen in seven fishing villages around Yenne.
	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	To increase the number of people with relevant skills for employment, we are helping science, technology, engineering and maths (STEM) students at the University of Dakar to develop English language skills, and we are also supporting the development of an Institute for Oil and Gas.
	Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all.	We will provide access to energy through the development of oil and gas reserves to meet Senegal's national energy strategy.  We are also a founding member of IIA in Senegal, helping to raise awareness of local opportunities among small and medium-sized enterprises (SMEs) and prepare them for potential participation in the oil and gas industry.
	Ensure sustainable consumption and production patterns.	Effective waste management is an important focus throughout all our activities.  As part of our efforts, we have supported the establishment of a community-based plastics recycling business.
	Build effective, accountable and inclusive institutions at all levels.	Globally, we support the UN Global Compact, promote efforts towards achieving the UN SDGs and are an active member of the EITI.  We also work with institutions in Senegal to support English language training and other capacity building.



**Social impacts and opportunities**

Assessing and managing the potential social and economic risks is critical for all new projects. To mitigate any negative impacts and enhance positive benefits, we develop a social management plan for each project.

In 2018, we revised guidance on managing social risks and opportunities. This major rationalisation involved looking at the procedures we have in place on social management and how they fit into our Project Development Process.

Some of these processes and procedures have now been incorporated into one document, Guidance on Managing Social Risks and Opportunities, to make the information easier to access. In this document, the UN SDGs now provide an additional framework for managing social risks and opportunities. Our guidance is also informed by Mapping the oil and gas industry to the Sustainable Development Goals: An atlas, published by IPIECA, the global oil and gas industry association for environmental and social issues.

Case study: Demonstrating value and measuring impact

# Assessing social impacts and opportunities in Mexico



In accordance with our Corporate Responsibility Management System (CRMS), we are required to evaluate the potential social risks and impacts of any major activity we undertake. The scope and nature of that Social Impact Assessment (SIA) depends on the local context and regulations.

Often, SIAs are performed as part of a combined Environmental and Social Impact Assessment (ESIA). However, in Mexico, local regulations required a separate SIA to be carried out and submitted for approval by the authorities.

In February 2018, Cairn Energy Mexico finalised an SIA for our proposed offshore exploration projects in Block 9 in the Gulf of Mexico. Developed in line with best practice, including the performance standards of the IFC and the European Development and Reconstruction Bank, the assessment involved:

- Gathering and analysing data to determine a social baseline of the area affected by the proposed activities;
- Evaluating the likely impacts;
- Designing impact mitigation measures; and
- Developing a social management plan.

The methodology included discussions with community members, fishermen and fishing cooperatives, local government representatives, port captains and business owners.

## Working Responsibly continued

## Society continued

### Local community stakeholders

Even when our assets are located offshore, we recognise that our activities can affect the people closest to our operations. For example, in maintaining a safety zone around drilling vessels, our operations can interfere with local fishing activity. In such instances, we share our plans and invite feedback from

local fishermen, to minimise disruption and maximise benefits.

We also conducted baseline surveys for environmental sensitivity, ahead of drilling campaigns in the UK, Norway and Mexico (see page 61).

Case study: Communities

### Community-led development in Senegal



Fishermen along the coast of Senegal face many challenges, including falling incomes, competition from foreign boats, inadequate equipment, a lack of training and food insecurity. To empower these communities to drive their own economic and social development, we have been working with the global non-governmental organisation The Hunger Project (THP) since 2015.

THP's 'epicentre strategy' helps communities develop social infrastructure, as well as physical community spaces, to avoid relying on external investment.

Through a 30-month pilot programme starting in July 2017, we are supporting around 22,450 people in seven fishing communities around Yenne, south of Dakar. The programme identifies leaders, helps them understand their communities' needs and trains them to mobilise local stakeholders. Capacity building through training and cascading information, particularly among women and girls, is coordinated through a local fisheries committee (Comité Local de Pêche – CLP), comprising fishermen, wholesalers and women fish processors.

So far, the project has had several positive outcomes:

- the CLP now has more than 2,100 members;
- more than 1,000 people have received life skills training;
- 35 female fish processors have been trained in Entrepreneurship and Financial Management;
- 1,080 women have benefited from access to credit;
- 42 facilitators are enrolled in THP's Vision, Commitment and Action workshop;
- 22 leaders are enrolled in technical and resource mobilisation training;
- 91 women are being trained in the Women's Empowerment Programme; and
- new equipment, from octopus pots to lifejackets, has been purchased and distributed.

**"The pilot project with Cairn gives the fishing communities around Yenne the means to understand and address the challenges they face. Women and young people in particular are taking the lead, building capacity through training, awareness-raising and investment."**

Mr Adama Ndiaye,  
animator (local leader),  
Comité Local de Pêche (CLP)

Human rights

We respect every person who works for or with us. Upholding their rights to safe working conditions, fair treatment and reasonable reward for their efforts is essential. To develop and maintain effective relationships with employees, contractors, communities and other stakeholders, we support international standards such as the UN Universal Declaration of Human Rights.

Our Human Rights Guidelines define how we identify, assess and manage potential human rights issues at key project stages. Our position is also integrated with our Corporate Social Responsibility Policy and our Code of

Ethics. We published our first Modern Slavery statement in early 2018 under the provision of the UK Modern Slavery Act; our 2019 statement is available online ([www.cairnenergy.com/services/modern-slavery-statement/](http://www.cairnenergy.com/services/modern-slavery-statement/)). We also completed human rights and modern slavery training for our employees, and our procedure for selecting service providers now incorporates modern slavery assessments.

Read more about how we monitor the security of people and assets, in locations as well as communities where we have existing operations on page 53.

100%

Operations that have been subject to human rights reviews or impact assessments

17%

Employees trained on human rights policies and procedures

 Read our **Modern Slavery Statement** at [www.cairnenergy.com/working-responsibly/](http://www.cairnenergy.com/working-responsibly/)



Supporting The Hunger Project, Senegal





## Working Responsibly continued

# Environment

Environmental protection is one of our key priorities when it comes to how we operate. We take a precautionary approach with rigorous risk assessment (see Governance on page 49) and robust working methods at all stages of our projects. In this way, we seek to minimise any adverse impact on the environments in which we work, but not to the detriment of safety.

### Environment Issues covered in this section:

#### Climate Change, Energy and Emissions

Greenhouse gas emissions

#### Biodiversity

Biodiversity and sensitive areas



Read more: Materiality Matrix on P48

### Greenhouse gas emissions

GHG emissions from our operations, arise mainly from the combustion of fuels. We monitor and manage these emissions, and disclose them in accordance with industry requirements, methodologies and standards on an 'operational control' basis (only including emissions from the assets we operate). Around 95% of the GHG emissions associated with our sector occur in the supply chain, so our influence on them is at the point of contractor selection and the application of modern, efficient equipment.

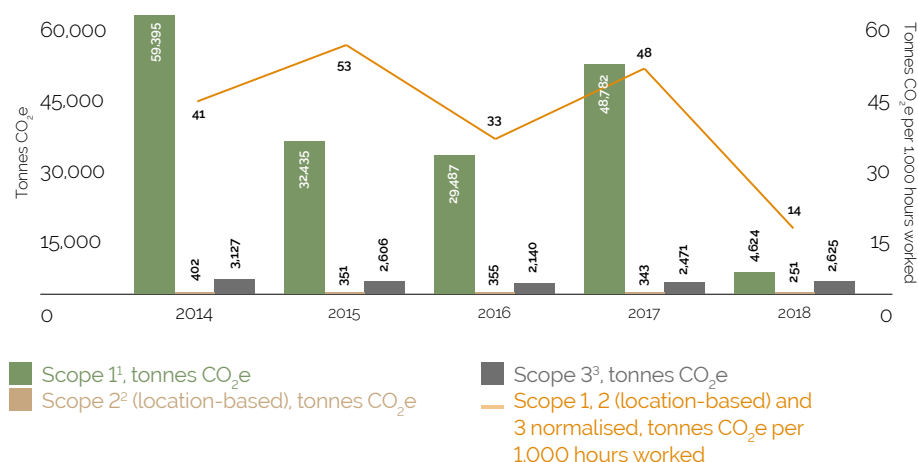
In absolute terms, our annual GHG emissions vary with the length and nature of the projects in the year, which are in turn influenced by safety considerations, technical requirements, the distance between operations and support bases and local environmental and meteorological conditions.

Most of our emissions arise from exploration and appraisal activities. In 2018, these arose primarily from the UK Ekland well. We had no venting or flaring this year. In 2019, we have active drilling programmes planned in Mexico, Norway and the UK.

Our total GHG emissions decreased in 2018 to 7,500 tonnes CO<sub>2</sub>e, as we drilled only one well in the UK. Normalised emissions (per 1,000 hours worked) were also reduced.

We also monitor and report on other air emissions, discharges and waste in connection with our activities and these are detailed in our CR Report (see [www.cairnenergy.com/working-responsibly](http://www.cairnenergy.com/working-responsibly)).

### Total and normalised GHG emissions (Scopes 1, 2 and 3)



#### Notes:

We calculate our GHG emissions in accordance with the GHG Protocol Corporate Accounting and Reporting Standard. We use the published 100-year Global Warming Potentials (GWPs) for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from the Intergovernmental Panel on Climate Change (IPCC) – with the Fourth Assessment Report (AR4) values applied when using Defra 2018 emission factors (they are already integrated), and the Fifth Assessment Report (AR5) values applied when using other emission factors.

- Our Scope 1 (direct) GHG emissions arise from fuel combustion (primarily during offshore rig, marine vessel and aircraft operations), flaring during well testing (not in 2018) and incineration of waste (a very small amount, and not in 2018). For calculating these emissions we use emission factors from the API Compendium 2009 (fuel combustion), EEMS 2008 (flaring) and the GHG Protocol 2017 (waste incineration).
- We report Scope 2 (purchased electricity) GHG emissions in line with GHG Protocol Scope 2 Guidance, i.e. in two ways: according to a location-based method and a market-based method. (Transmission and distribution losses are excluded.) For the location-based method we use emission factors from the IEA (International Energy Agency) (updated to IEA 2018 in 2018). These are grid average emission factors for each country. For district heating and cooling we use location-based emission factors from Defra (updated to Defra 2018 in 2018). For the market-based method we use emission factors, where available, in the following order of preference:
  - Supplier-specific emission factors – obtained from Cairn's offices' electricity suppliers.
  - Residual mix emission factors – obtained from the Association of Issuing Bodies (AIB) document 'European Residual Mixes 2017'.
  - Location-based emission factors. These are the same IEA and Defra emission factors that we use for calculating location-based emissions.
 We have provided location-based Scope 2 figures in this report. Our market-based Scope 2 figures, and further details about our GHG emissions data and calculations, are available in our Data Appendix and on our website.
- We report Scope 3 GHG emissions from two sources: 1) business travel (business travel well-to-tank emissions are excluded); and 2) electricity transmission and distribution losses. For calculating Scope 3 (business travel) GHG emissions we use the Defra methodology, including its recommendation to include an uplift for the influence of radiative forcing in air travel emissions. We updated to Defra 2018 emission factors in 2018 (see [www.ukconversionfactorscarbonsmart.co.uk/](http://www.ukconversionfactorscarbonsmart.co.uk/)). For calculating Scope 3 (electricity transmission and distribution losses) GHG emissions we use Defra 2018 emission factors.
- Limited assurance of our 2018 GHG data (Scopes 1, 2 and 3 and normalised) has been provided independently by ITPnergisid which, within the scope of the limited assurance engagement, has found that the GHG emissions reported are materially correct and a fair representation of available information. A full assurance statement detailing the verification undertaken and its limitations is available on our website.

**Biodiversity**

While biodiversity is assessed as being a medium materiality issue, we are including it as we recognise it as an emerging risk.

**Protecting Biodiversity**

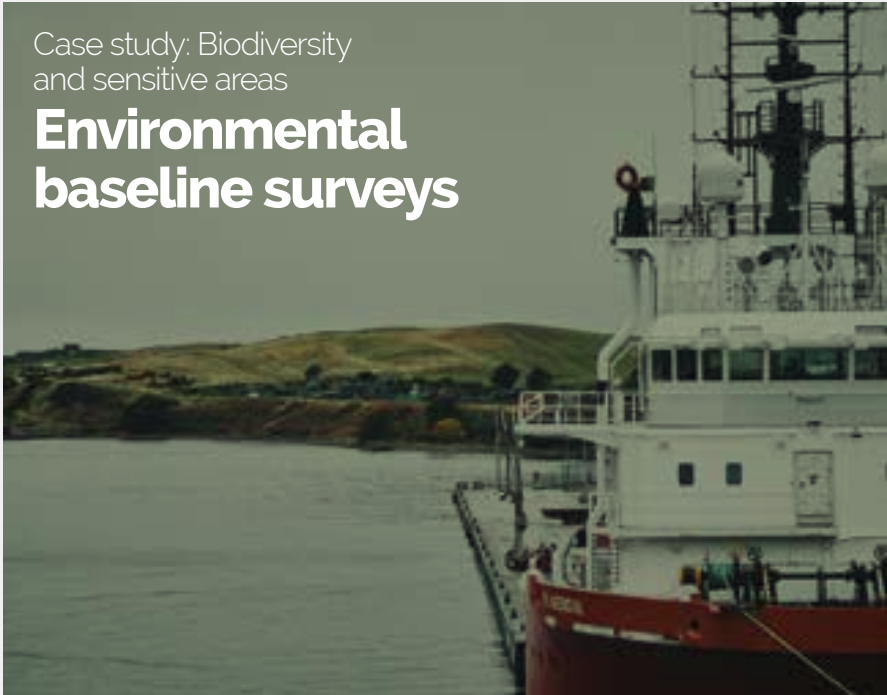
Global awareness of the threat to biodiversity has increased dramatically in recent years. We have always recognised the risks of impact on the habitats, ecosystems and species that enrich our planet, and committed ourselves to protecting them in the locations where we work.

Where our operations might affect critical habitats, protected areas or the welfare of local communities relying on ecosystem services, we undertake extensive assessments of their potential biodiversity impacts. We then work with technical specialists, government departments, NGOs and other local stakeholders on any mitigation activities required.

Our approach is set out in our CRMS and all our commitments related to preserving biodiversity are covered by our Business Principles and our Environment Policy.

Case study: Biodiversity and sensitive areas

# Environmental baseline surveys




We conducted several environmental baseline surveys in 2018 in preparation for drilling campaigns in the UK, Norway and Mexico. Environmental Baselines (EBLs) help us to define existing biodiversity, environmental and other conditions near our activities, using a suite of analytical techniques ranging from seabed sampling and physicochemical analysis to photography.

As well as providing the data for the assessment of potential impacts on habitats and helping us develop mitigation measures, they also help determine the nature and extent of existing damage arising from the previous activities of others.

- Our site survey for the operated Ekland well in the UK, completed in January 2018, was a requirement of our submission to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED), and was incorporated into our well application in July. We also undertook site and baseline surveys to identify sensitive habitats in support of environmental impact work for the operated Chimera well in the UK, and the Lynghaug and Godalen wells in Norway planned for 2019.

- The EBL survey for Block 9, one of our two operated licences offshore Mexico, was approved by the Mexican regulator Agencia de Seguridad, Energía y Ambiente (ASEA) in August 2018. We also completed our baseline survey for Block B15, which also determined the extent of previous activities in the area. We have informed ASEA that we intend to exclude some locations from exploration, including shallow water and areas of coral, on the grounds of environmental sensitivity.

In addition, we worked with our partner Woodside to submit the Environmental and Social Impact Assessments (ESIA) for the SNE development in Senegal in August 2018. Following regulatory scrutiny by the Senegal National Technical Committee, all responses and modifications to the ESIA were submitted in November 2018, with subsequent public consultation, and approved in January 2019.

 Read more: **How we Manage Risk** on P32

 Read our **Business Principles and Environment Policy** at [www.cairnenergy.com/working-responsibly/](http://www.cairnenergy.com/working-responsibly/)

## Our People: Driving Value

Our **people**, with their **skills** and **experience**, represent our most **important** resource.

Through them, we develop and nurture the right relationships required to deliver our strategy. Our people are critical to our success and are considered one of our key corporate responsibility concerns.

In 2018 our people focus was on five key themes, each underpinned by our people strategy, high-performing behaviours (HPBs) and values, and supported the continued development of our high-performance culture:



### Talent acquisition

As the business grows, it is essential that we have a planned programme of talent acquisition to ensure that we can continue to deliver our strategy.

In 2018, we experienced significant talent growth, particularly in our Norwegian and Latin American assets.

We qualified as an operator in both the UK and Norway and, with an ambitious exploration drilling campaign planned over 2018-19, it was essential that we grew our talent base in the Norwegian organisation to be able to deliver our programme. Consequently, we have strengthened the core team in Norway across various disciplines, including HSE, geoscience, drilling and finance, both through hiring and through internal promotions and the secondment of talent from other parts of the Group.

Having been awarded two licences in Mexico in mid-2017 and establishing an office base in Mexico City, a key focus was building a new in-country team to manage our local operations. In addition to sourcing individuals with the right skills and experience, this also required us to navigate the complex local employment framework, establish benefits providers and ensure that we could attract the very best talent. Whilst challenging, by mid-2018, we had successfully established a small, core in-country team, who are now fully focused on progressing our licence activity and commitments.



Talent management

To match the aspirations of our business strategy, it is vital that we attract, retain and develop the best talent, enhance our breadth of diversity, and ensure our people are deployed in roles and activities that will add the most value. One of our key priorities, therefore, is to continue our work on our robust talent management strategy.

Assessing our effectiveness

An internal audit of Managing Talent was conducted in 2017 to assess the effectiveness of the processes we had in place to identify current and future talent needs, and to recruit or develop the talent we will need. The review also considered processes to maximise talent retention.

The review highlighted several positive observations, from identifying talent requirements and aligning incentives with performance, through to developing leaders and engaging with staff. There were also some recommended areas for improvement regarding talent management. We have therefore adopted a new three-tiered approach, as follows:

As part of our talent management strategy we identified key roles in our business that require focused investment through an accelerated programme.

Our new young leadership programme will be used to accelerate the development of our pipeline of future leaders.

For most of our people, our robust management performance system includes annual objectives and development plans agreed with line managers. As a natural output from this process, high-performers will be diverted into either (or both) of the above tiers.

Diversity and inclusion

Our approach to diversity and inclusion across our Group is congruent with the Corporate Code of Governance in that we recognise its relevance to the markets in which we operate, all our stakeholders and the communities we serve.

We are firm in our view that diversity and inclusion are not simply about meeting quotas: we aim to make the diversity of our organisation work for the benefit of our people and shareholders. We recognise diversity in all its dimensions: national origin, age, race and ethnicity, religion/belief, gender, sexual orientation and marital status. We also focus on other inherent traits such as socioeconomic



background, education, training, sector experience, organisational tenure and personality types/cognitive diversity.

We're continuing to develop our diversity metrics to keep pace with, or be ahead of, emerging expectations from the industry's governance bodies as well as our broader stakeholder communities. Some of our current diversity metrics are detailed below.

Management development 'bootcamp' programme

We believe managing people so that they can perform at their best is the key to being a high-performing organisation. We have high expectations of our people managers' abilities to support and motivate their teams and deliver optimum results.

Our Management Bootcamp is a bespoke development programme for people managers, designed to support individual, team and Company success. We completed phase 1 of the programme in early 2018 and evaluated its impact on participants.

Given the success of the programme and the amount of positive post-attendance feedback, we progressed to a second phase of management development during 2018. Four new modules were designed and delivered between September and November 2018; relevant managers have two years to undertake all four of the modules. By the end of the 2018, 77% of our people managers had

or were scheduled to participate in phase II of the programme.

Learning and development

As in prior years, learning and development has continued to be actively undertaken across the Group both to support the delivery of our objectives and to further develop our people to enable them to realise their career aspirations. The learning and development activity was delivered in a variety of different forms including: traditional classroom training; overseas secondments; workshops; conferences; field trips; and e-learning, to ensure that all learning styles could be accommodated. In total, close to 1,200 days were dedicated to training and development activity across the Group over the year (equating to ~six days per employee).

At the beginning of the year, to tie in with the commencement of our 2018 performance management cycle, all staff across the Group participated in internal workshops on writing SMART performance and behavioural objectives. The workshops supported the development of individual 2018 personal objectives, integrated with the team and Group KPIs and helped position everyone for success as well as ensuring there was full alignment of our 2018 deliverables.

Other training courses focused on how we could achieve greater efficiencies in the way we work, including priority management, project management, internal consultancy, and various software application skills sessions.

We're continuing to develop our diversity metrics to keep pace with, or ahead of, emerging expectations from the industry's governance bodies as well as our broader stakeholder communities. Some of our current diversity metrics are detailed below:

47% of Cairn staff were women, down 1% from the year before.

100% of staff returned to work following maternity/paternity/adoption leave, the same as in 2017.

11.5% of Cairn staff worked part-time, down from 13% in the prior year.

25% of management roles were held by women, down from 30% in the prior year.

46 – average age at Cairn, unchanged from 2017.

The Board continued to include two female members, unchanged from the prior year. This equates to 22% of our Board.

3% of the workforce had a disability, unchanged from 2017.

19 different nationalities were employed at Cairn, two more nationalities than in 2017.

## Our People: Driving Value continued

In addition to their annual conference, our geoscientists continued to develop their technical knowledge with each member of our geoscience team attending one of a series of field trips to Salt Lake City in the USA, Karoo in South Africa or the Pyrenees in Spain.

We also continued to facilitate the development of our staff through secondments to other parts of the Group. In 2018, these included several overseas secondments for members of our Wells, Geoscience and Finance teams. The benefits of such assignments are far-reaching, helping to broaden exposure to different projects, interfaces, regulations and practices and, importantly for geoscientists, different geological basins. The business also benefits from the thought diversity that arises from the opportunity to gain different perspectives.

To ensure awareness, understanding and compliance on important governance, regulatory and security topics, mandatory e-learning was also implemented across the Group, which included comprehensive modules on business ethics, anti-bribery and corruption, GDPR and cyber security.

### Encouraging and supporting a future pipeline of talent within oil and gas

We continued our sponsorship of and attendance at the Geological Society Edinburgh Career Fair in Edinburgh. As in prior years, this was a very well attended event which included career and industry presentations covering different areas of geology and academia as well as an exhibition consisting of industry and professional bodies and higher education institutions promoting MSc and PhD programmes. One of our recent graduate geoscientists presented at the event to highlight her own educational and career journey and provided insight into the role of a geoscientist in the oil and gas industry.

We also supported the 2018 Midlothian Science Festival, which comprises a series of STEM-focused events dedicated to engaging, educating, and inspiring people of all ages and backgrounds in the field of science. In addition to supporting the festival by means of a financial donation, two of our geoscientists also volunteered at the 'Dino & Rocks Day', which aimed to help showcase the various sub-disciplines of geoscience. Over the course of the two weeks the festival managed to attract around 10,000 visitors, with more than 300 attending the Dino & Rocks Day.

In addition, we ran a summer intern programme for nine university students from June to September (see case study right) as well as providing work experience opportunities to eight school children.

### Case study:

## Summer intern programme

Every year, we run a summer internship programme, offering placements across various functional disciplines. In September 2018, our latest intake of interns finished their time with us. Some were still in the third year of university, while others were taking their first steps into corporate life.

Unlike previous years, all nine students started at the same time, spending up to four months in our Edinburgh office. They were encouraged to bring fresh thinking and a new perspective to our work and were set an initial challenge around how to best work as a cohort before they embarked on their internships across a variety of separate departments. As a cohort, they were also tasked with a team project aimed at identifying efficiencies across the business.

The group presented their ideas to members of both the Senior Leadership and Management Teams, challenging perceived wisdom and questioning the status quo. As well as impressing the senior team with their confidence and communication skills, they also identified £132k of potential savings that could be achieved through new processes and greater efficiency.

**"My time spent as an intern at Cairn was an extremely enriching and exciting experience! Whilst there, I had the rare opportunity to work across three separate departments, giving me a real feel for each department's involvement in the projects at Cairn and a greater insight into the energy industry as a whole. The opportunity was unparalleled. Whilst in the different departments, I had the chance to work with a variety of people on real projects impacting the Company. The employees at Cairn were extremely welcoming, often looking out for me, and the HR team really took into consideration my development.**

**In addition to this, I was lucky enough to be involved in the Summer Intern Project. This gave me the rare opportunity to present business improvement ideas to the Senior Leadership Team at Cairn, an opportunity not many interns get! All in all the experience was not only invaluable but allowed me to get hands-on insight into the energy sector all whilst developing many skills that will help me progress in my career."**

Peter, 2018 Cairn summer intern



The Kilt Walk 2018

**Employee engagement**

Our people are the foundation on which our success is built, and we are committed to providing the best possible employee experience. Within a positive, collaborative work environment, we aim to create the conditions in which all our people can develop and fulfil their potential.

**Employee engagement pulse surveys**

It is widely recognised that the way employees feel about their place of work materially affects the performance of that organisation. We need to enable our people to be the best they can be at work, which means employees need to feel respected, involved, heard, well led and valued by their colleagues and managers alike. We need to create the conditions in which employees can offer more of their capability and potential.

In 2017, the Managing Talent internal audit identified a gap in our means of assessing employee satisfaction and gathering feedback from staff and consequently recommended the re-instatement of employee satisfaction surveys, the last of which had been conducted almost five years ago.

One of our KPIs in 2018 was therefore to develop and implement an employee engagement strategy. As part of this strategy, following a successful initial pilot, monthly employee engagement 'pulse' surveys were implemented across the Group in Q4 2018. The pulse survey approach is a move away from the traditional annual survey to a more dynamic 'temperature check' using short, regular surveys that provide real time insights and allow us to track progress over time.

While it is too soon to measure the output from the surveys, initial indications are strongly positive and the participation rate for Q4 2018 was 90%. We anticipate that in time, the outputs will enable us to assess engagement levels and gather feedback from colleagues on a wide range of topics.

**Rewards and benefits guide**

At Cairn, we strive to be an employer of choice. Employee benefits offer a way to attract and retain employees, contribute towards improving staff well-being and enhance engagement. We offer a competitive benefits package, with many excellent benefits and it is important that we find appropriate ways to regularly promote the available benefits to our staff.

Cairn provides an annual Total Reward Statement (TRS) to demonstrate the total value of an employee's compensation and benefits package. However, to ensure that our staff are fully informed and taking full advantage of the benefits on offer at Cairn, in March 2018 we launched a new Rewards and Benefits Guide for UK based employees. The online guide was designed to be as user-friendly as possible and provides staff with immediate access to detailed information

on benefit-related procedures along with application forms and links to the relevant policies. It was designed to have the same look and feel as the TRS to ensure clarity and consistency of understanding for staff.

**Health and well-being**

Providing a safe working environment and maintaining people's health and well-being are core corporate responsibilities and of paramount importance to Cairn, forming the basis of everything we do.

In July 2018, we launched a new health and well-being programme; the key aim of which is to help inform our staff about the ways in which their behaviour and lifestyle can affect their health and well-being. The programme seeks to ensure that information is understood, to help people explore their values and attitudes and, where appropriate, to help them change their behaviour.

A programme of activities, focusing on the two broad themes of mental health and nutrition, was launched in the UK and Norway, with a global rollout to follow in due course. Activities have included free fruit every day, a weekly breakfast club, guided lunchtime and weekend walks, a running club and on-site massage. Regular 'lunch and learn' sessions have been held on topics such as dementia, mindfulness and depression.

We have also delivered well-being programmes such as a pedometer challenge (a virtual walk from Stavanger to Mexico City), stair-step challenge and Kilt Walk. A recent session held in Edinburgh on building resilience in business saw staff from Dakar, London, Mexico City and Stavanger attend via video conference.

To support the launch, we invited a workplace well-being consultancy to run voluntary drop-in sessions and undertake biometric testing. In both Edinburgh and London, employees could have their heart rate, cholesterol and body fat levels measured, as well as be given their metabolic age. This information helped inform staff on the choices they make on their lifestyle.

We also continue to offer optional annual health assessments for all members of staff. This benefit has been popular since it was first introduced three years ago.

Recognising the impact of social interaction and strong working relationships on mental health, we have continued to provide staff with opportunities to socialise – on a team, functional, and Company basis – including team-building events and away-days, our annual family day, summer dinner in Stavanger, quiz night and a ceilidh. One of the largest events, held in late August, involved all our geoscientists from across the Group gathering in Edinburgh for a three-day Geoscience Conference. A similar event was held in May for all finance staff from across the Group.

**Regulatory and systems development**

Our workplace policies are designed to recognise and reward our employees' contributions, offer opportunities for professional development and support them with the right systems so that they can deliver our annual work programme.

**General Data Protection Regulation (GDPR)**

On 25 May 2018, the new EU GDPR legislation came into force. Throughout 2018, we have worked to ensure all processing of personal data is carried out in compliance with these new regulations. This has involved extensively documenting all processing of personal data, including processing performed by third party vendors on our behalf. In addition, we have published revised privacy notices to ensure that we are transparent with individuals on how we process their data.

Where we have identified gaps in our data processing practices, we have an active plan of remediation, which is underway. In addition, mandatory GDPR training has been implemented across the business. A Data Privacy Coordinator is also now in place to provide support to the Group and ensure ongoing compliance against the regulations and internal risk governance.

Such is the importance of this new legislation that, in September, we engaged our internal auditor to undertake an audit of our compliance against GDPR. The report was very positive and did not include any unexpected outcomes or any high-risk exposure to the business. A very small number of lower risk observations were made, all of which are being addressed.

**Continued embedding of new Enterprise Resource System (ERP)**

With the implementation of our new ERP in August 2017, a concerted effort has been made to fully embed the new system and related processes to ensure a consistent platform across the Group. With the Edinburgh, London and Stavanger offices now fully operational and Mexico City on track for a January 2019 implementation, we are beginning to realise the benefits in terms of shared business practices, increased compliance of key user processes, enhanced cross-Group visibility, less paperwork, more accurate record keeping and ease of reporting.

This Strategic report has been approved by the Board and is signed on their behalf by



**Simon Thomson**  
**Chief Executive**  
11 March 2019



## Board of Directors

### Executive Directors



#### Simon Thomson

Chief Executive  
(54)

#### James Smith

Chief Financial Officer  
(42)

### Non-Executive Directors



#### Ian Tyler

Non-Executive Chairman  
(58)

#### Todd Hunt

Non-Executive Director  
(66)

#### Committee membership

SL RM N

SL RM

N R

#### Term of office

Simon was appointed to the Board in November 2006 as Legal and Commercial Director and became Chief Executive in July 2011.

James was appointed to the Board in May 2014 as Chief Financial Officer.

Ian was appointed as an independent Non-Executive Director in June 2013 and became Non-Executive Chairman in May 2014.

Todd was appointed as an independent Non-Executive Director in May 2003. Given his length of tenure, he is no longer considered to be independent in terms of the UK Corporate Governance Code.

#### Independent

Not applicable

Not applicable

Yes

No

#### Skills and experience

LLB (Hons).  
Aberdeen University  
Diploma in Legal Practice,  
Glasgow University

BA (Hons).  
University of Oxford

Bachelor of Commerce,  
Birmingham University

Bachelor of Business Administration,  
University of Texas

Simon Thomson was appointed Chief Executive in July 2011 having been Legal and Commercial Director since 2006 and holding various posts across the organisation, including Head of Assets. Simon originally joined Cairn in 1995.

James Smith joined Cairn in March 2014 from Rothschild where he was a Director of the energy and power team with 15 years' experience advising exploration and production companies, oil majors and national oil companies on their merger and acquisition transactions and equity and debt market financing.

Ian Tyler qualified as a chartered accountant with Arthur Andersen in 1987, subsequently holding a number of senior finance and operational positions within listed companies before being appointed Chief Executive of Balfour Beatty plc from 2005 to 2013. During this time, he took the company from being primarily a UK construction business, to a global infrastructure services business.

Todd Hunt has more than 45 years' experience in the oil and gas industry. He is President and joint owner of Atropos Exploration Company and Atropos Production Company based in Dallas, Texas.

#### Key external appointments

##### Public companies:

None

No external appointments

##### Public companies:

Non-Executive Director of BAE Systems plc  
Non-Executive Chairman of Bovis Homes Group PLC

##### Public companies:

None

##### Non-public companies:

Non-Executive Director of Graham's The Family Dairy Limited  
Director of Graham's The Family Dairy Group Limited  
Non-Executive Director of Edinburgh Art Festival

##### Non-public companies:

Independent Chairman of AWE Management Limited  
Non-Executive Chairman of Amey PLC (a wholly owned subsidiary of a Spanish listed company)

##### Non-public companies:

President and joint owner of Atropos Exploration Company and Atropos Production Company

#### Committee membership key

Committee Chair

Audit Committee

Remuneration Committee

Nomination Committee



**Alexander Berger**

Non-Executive Director  
(53)

**Keith Lough**

Non-Executive Director  
(60)

**Peter Kallos**

Non-Executive Director  
(59)

**Nicoletta Giadrossi**

Non-Executive Director  
(52)

A

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Alexander was appointed as an independent Non-Executive Director in May 2010. Alexander will retire as a Director following the AGM on 17 May 2019.

Keith was appointed as an independent Non-Executive Director in May 2015.

Peter was appointed as an independent Non-Executive Director in September 2015.

Nicoletta was appointed as an independent Non-Executive Director in January 2017.

Yes

Yes

Yes

Yes

Masters in Petroleum Engineering, Delft University  
MBA Rotterdam School of Management

MA Economics, University of Edinburgh  
MSc in Finance, London Business School

BSc (Hons) Applied Physics, Strathclyde University  
MEng Petroleum Engineering, Heriot Watt University

BA in Mathematics and Economics, Yale University  
MBA, Harvard Business School

Alexander Berger is Chief Executive Officer of Oranje-Nassau Energie B.V., a private Dutch exploration and production company based in Amsterdam.

Keith Lough is a Fellow Chartered Certified Accountant (FCCA) and was Finance Director of British Energy PLC from 2001 to 2004 before becoming a founder shareholder and Chief Executive of Composite Energy Ltd, a privately owned coal-bed methane focused business. He held this post until 2011, when Composite was divested to Dart Energy.

Peter Kallos has held a number of posts at Enterprise Oil including Head of Business Development, CEO Enterprise Italy and General Manager of the UK business before his appointment in 2002 as Executive Vice President International and Offshore at Petro-Canada. In 2010, Peter became Chief Executive of Buried Hill Energy.

Nicoletta Giadrossi spent 10 years at General Electric where she became General Manager for their Oil and Gas, Refinery & Petrochemicals Division. Subsequently, she spent a number of years in private equity ahead of being appointed a Vice President and General Manager at Dresser-Rand. She later joined Aker for two years before taking up the role of President (Region A, Europe, Africa, Middle East, Russia & India) at Technip, a role she held from 2014 to 2016.

Public companies:

None

Non-public companies:

Chief Executive Officer of Oranje-Nassau Energie B.V.  
Director of Oranje-Nassau Energie UK Limited  
Director of Oranje-Nassau Energy Petroleum Limited  
Non-Executive Director of Discover Exploration Limited

Public companies:

Non-Executive Chairman of Rockhopper Exploration PLC  
Non-Executive Chairman of Gulf Keystone plc

Non-public companies:

Non-Executive Director of the UK Gas and Electricity Markets Authority  
Chairman of RSI Geoscience Ltd.

Public companies:

Executive Chairman of Buried Hill Energy  
Non-public companies:  
None

Public companies:

Non-Executive Director of Fincantieri S.p.A.  
Non-Executive Director of Brembo S.p.A  
Non-Executive Director of IHS Markit Ltd.  
Non-public companies:  
Chair of TecHouse As

As at 11 March 2019

## Corporate Governance Statement

**Operating  
with integrity**  
at all levels, at  
all times





Dear Shareholder,

At Cairn, we operate with integrity at all times, recognising that in doing so the Company will maintain the trust of its many stakeholders. We are committed to working responsibly as part of our strategy to deliver value for all stakeholders and to engaging with our stakeholders on a regular basis, with a clear focus on working in a safe and secure, as well as environmentally and socially responsible manner.

The Board recognises its important role in promoting high standards of corporate governance and understands that an effective, challenging and diverse Board is essential for delivering the Company's strategy in line with shareholders' and other stakeholders' long term interests, generating confidence that the business is conducting itself in an ethical and responsible manner.

Our corporate culture is central to this, and promotes integrity and openness in everything we do. We pursue deep understanding at every level of our organisation of the core set of values which underpin how we do business and the behaviours expected of our people (see opposite). Further information on our governance, culture, strategy and business model and our commitment to working responsibly including how we engage with our key stakeholders can be found in the Strategic Report section of this Annual Report.

During the year the Board has also placed much focus on operational delivery and risk management. An open and balanced review of our business performance is set out in the Strategic Report on pages 1 to 65. During the year, the Board regularly discussed our strategic priorities, operational delivery and the associated key business risks and their ongoing management. We provide further information on these activities on pages 30 to 40.

There has also been a continuing focus on succession planning by both the Board and Nomination Committee with the aim of assessing the executive non-executive and senior management succession pipeline at Cairn, and identifying the skills that are needed to support our strategy and business for the long term. We provide further information in relation to our succession planning in the separate Nomination Committee Report on pages 85 to 86. This will continue to be a key area of focus for the Board in future years.



**Ian Tyler**  
Chairman  
11 March 2019

## Our core values

### Building Respect

We build respect by communicating openly with each other and our stakeholders, listening effectively and providing feedback and recognition in a constructive way.

### Nurturing Relationships

We work closely with our stakeholders – colleagues, local communities, contractors, suppliers, Governments, regulators, non-governmental organisations, industry partners and shareholders.

### Acting Responsibly

We act with honesty and integrity to ensure all our operations are carried out safely and empower our people to achieve their goals and contribute to the wider performance of the business in a responsible manner.

 [Read more: Chairman's Statement on P12](#)

**“Our corporate culture promotes integrity and openness in everything we do. We pursue deep understanding at every level of our organisation of the core set of values which underpin how we do business and the behaviours expected of our people.”**

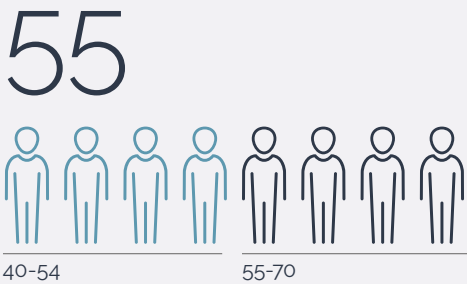
# Corporate Governance Statement

continued

## Board diversity

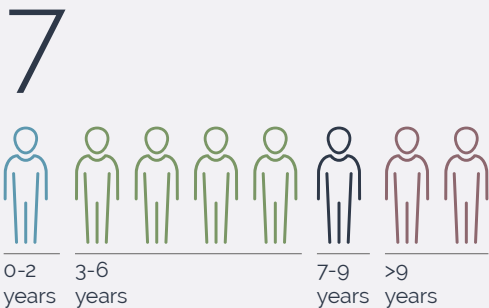
The mix in our membership.

Average age (years)\*



\* figures as at 11 March 2019

Average tenure (years)\*



### Compliance with the UK Corporate Governance Code

As a company incorporated in the United Kingdom with a Premium Listing on the London Stock Exchange, Cairn is required to report against the UK Corporate Governance Code (as published by the Financial Reporting Council and available on its website at [www.frc.org.uk](http://www.frc.org.uk)) (the 'Code'). This statement reports compliance with the version of the Code published in April 2016. Cairn is fully committed to achieving compliance with the principles and provisions set out in the Code and the Board is responsible for ensuring that an appropriate framework is in place to do so.

Following publication of a revised version of the Code in July 2018, the Board has carefully considered the new provisions that have been incorporated into the revised Code and related FRC Guidance on Board Effectiveness. Although these requirements only apply to the Company's financial years beginning on or after 1 January 2019, the Board considers that a number of them are already satisfied by its existing policies and practices. Where this is not the case, the Board has been actively taking steps to ensure that the Company will be compliant when the new Code takes effect and in preparation for reporting under the new Code in 2020. One particular area of focus has been to expand the Company's existing channels of engagement with the workforce, and the Company plans to constitute a small workforce advisory panel, which will be chaired by an independent Non-Executive Director (Nicoletta Giadrossi). The Company will include further information about the activities of the workforce advisory panel in the 2019 Annual Report.

The information in this statement (together with the Strategic Report, Audit Committee Report, Nomination Committee Report, Directors' Remuneration Report and Directors' Report) describes the manner in which the Company has applied the main principles of governance set out in the Code and complied with the individual Code provisions. It is the Board's view that the Company has fully complied with the 2016 version of the Code throughout 2018.

### The Board

Cairn's business is international in scope and carries political, commercial and technical risks. Accordingly, particular attention is paid to the composition and balance of the Board to ensure that it has wide experience of the industry and regulatory environment in which Cairn operates, and appropriate financial, operational and risk management skills. In each Board appointment, whether executive or non-executive, objectivity and integrity, as well as skills, experience, ability and diversity, assist the Board in its key functions, and are prerequisites for appointment. This also applies to senior management appointments below Board level and to our succession planning.

The Company considers ongoing refreshment of the Non-Executive Directors on the Board to be positive as it brings new thinking to the Company as well as ensuring there is a healthy level of independent challenge to management. The Board's collective skills and experience equip it to direct the Company's strategy and meet its business needs as they evolve over time. The Board is also mindful, however, that an appropriate balance between directors who can bring a new perspective and those who provide continuity is essential for a business like Cairn's.

The Company appointed three new Non-Executive Directors during the period from 2015 to 2017. During 2018, two Non-Executive Directors retired from the Board, with Iain McLaren and Jackie Sheppard retiring on 15 May 2018 and 31 December 2018 respectively. Following these changes, the Board currently comprises two Executive Directors and six Non-Executive Directors, including the Chairman, Alexander Berger, having served on the Board for nine years, will not seek re-election at the AGM to be held on Friday 17 May 2019 and as such will retire as a Non-Executive Director immediately following the AGM. The Company has commenced a search for two new Non-Executive Directors and currently expects to complete the appointment process during the first half of 2019. Further information on succession planning is included in the Nomination Committee Report on pages 85 and 86.

The Directors of the Company as at the date of this statement are set out in the table below and further information about our Directors is also included in the Board of Directors section on pages 66 and 67.

Name	Role	Date of appointment (in current role)	Date of last re-election
Simon Thomson	Chief Executive	July 2011	15 May 2018
James Smith	Chief Financial Officer	May 2014	15 May 2018
Ian Tyler	Non-Executive Chairman	May 2014	15 May 2018
Todd Hunt	Non-Executive Director	May 2003	15 May 2018
Alexander Berger	Non-Executive Director	May 2010	15 May 2018
Keith Lough	Non-Executive Director	May 2015	15 May 2018
Peter Kallos	Non-Executive Director	September 2015	15 May 2018
Nicoletta Giadrossi	Non-Executive Director	January 2017	15 May 2018

\*\* previously two Directors until 31 December 2018

Nationality

5:3



Gender

7:1



\* figures as at 11 March 2019

Diversity is a key element of the Cairn Board, with emphasis placed not only on gender but also on culture, nationality, experience and cognitive diversity. Following the retirement of Jackie Sheppard at the end of 2018, the number of women on the Board reduced from two to one and the ongoing process to recruit new Non-Executive Directors is therefore actively seeking to appoint at least one woman. The Board continues to demonstrate diversity in a wider sense, with Directors from the Netherlands, the USA, and Italy as well as the UK, bringing a range of domestic and international experience to the Board. The Board's diverse range of experience and expertise covers not only a wealth of experience of operating in the oil and gas industry but also extensive technical, operational, financial, governance, legal and commercial expertise. Further information on diversity within Cairn is included in the Nomination Committee Report on page 86 and in the Strategic Report section of this Annual Report.

Division of responsibilities between Chairman and Chief Executive

The Company has a clear division of responsibilities between the Chairman and the Chief Executive, which is set out in writing and agreed by the Board.

Chairman: key responsibilities	Chief Executive: key responsibilities
Leading the Board in an ethical manner and promoting effective Board relationships.	Managing the business and proposing and developing the Company's strategy and overall objectives in consultation with the Board.
Ensuring that the Board plays a full and constructive part in the determination and development of the Company's strategy.	Driving the successful and efficient achievement of the Company's Key Performance Indicators (KPIs) and strategic objectives.
Building a well balanced Board, considering Board composition and Board succession.	Leading the Senior Leadership Team in ensuring the effective implementation of decisions of the Board and its committees.
Ensuring the effectiveness of the Board and individual Directors.	Providing strong and coherent leadership of the Company and effectively communicating the Company's culture, values and behaviours internally and externally.
Overseeing the annual Board evaluation and acting on its results.	Engagement with shareholders and other stakeholders.
Ensuring appropriate induction and development programmes for Directors.	
Setting the Board agenda, chairing Board meetings and overseeing implementation of the Board's decisions.	
Engagement with shareholders and other stakeholders when appropriate.	

Senior Independent Director

Following Iain McLaren's retirement from the Board in May 2018, Peter Kallos assumed the role of Senior Independent Non-Executive Director. The main responsibilities of the Senior Independent Non-Executive Director are as follows:

- To provide a sounding board for the Chairman and to serve as an intermediary with other Directors when necessary;
- To be available to shareholders and other stakeholders if they have concerns which contact through the normal channels of Chairman, Chief Executive or Chief Financial Officer has failed to resolve or for which such contact is inappropriate; and
- To meet with the other Non-Executive Directors without the Chairman present, at least annually, in order to appraise the Chairman's performance.

Performance evaluation

The Board continually strives to improve its effectiveness and recognises that the performance evaluation process represents an annual opportunity to enhance overall Board effectiveness.

In line with the Code recommendation to conduct an externally facilitated Board evaluation at least every three years, the Board appointed Independent Audit to facilitate its performance evaluation for 2018 (previous externally facilitated evaluations took place in 2012 and 2015, with evaluations conducted internally in the intervening years). Independent Audit also conducted the previous externally facilitated evaluation of the Board in 2015 but otherwise has no connection with the Company or its Directors.

In order to facilitate the external evaluation, Independent Audit reviewed a full annual cycle of the Company's Board and committee papers and attended the November 2018 Board and committee meetings as observers. They also conducted a series of one-to-one interviews with each Director and the Company Secretary, as well as the Chief Operating Officer and Director of Exploration, in Q4 2018 and Q1 2019. In addition, the Senior Independent Non-Executive Director met with the Non-Executive Directors (excluding Ian Tyler) in order to discuss and appraise the performance of the Chairman.

The results of the Board effectiveness review were then set out in a final report published by Independent Audit in February 2019, which was presented and discussed at the March 2019 Board meeting.



## Corporate Governance Statement

### continued

#### Performance evaluation continued

Some of the main action points arising from the 2018 performance evaluation include the following:

Key action points	Implementation
Refocusing of the management presentation part of Board meetings	A review of the format and approach (including content and structure) for the management presentation part of Board meetings is being undertaken to ensure that this continues to allow for an appropriate level of Board discussion on different areas of the business, and that the main Board session is more focused around a tighter agenda.
Succession planning	The evaluation provided useful insights into the Board's ongoing succession planning activities, with a particular focus on the current process to recruit two new Non-Executive Directors and how best to ensure that the Board has the right mix of skills and diversity going forward.
Culture	The evaluation reinforced that culture is a strategic matter which requires ongoing focus by the Board, including workforce and other stakeholder engagement. The Company will continue to develop and enhance its activities in this area to facilitate the integration of these matters with the Board's strategic discussions.

As explained above, some improvements have been identified and have already been implemented or will be addressed during 2019.

Following the Board performance evaluation process conducted in 2018, the Board and the Board committees are satisfied that they are operating effectively and that each Director has performed well in respect of that Director's role on the Board and its committees. The Board believes that all of the Directors' performance continues to be effective and that they each demonstrate commitment to their role. The Nomination Committee has also reviewed the outcomes of the 2018 evaluation to consider how these influence or otherwise impact on Board composition.

The Executive Directors also have their performance reviewed by the Remuneration Committee against the Group KPIs which are set annually (further details of the KPIs can be found on pages 6 to 9). The 2018 bonuses payable to the Executive Directors under the Company's cash bonus scheme (described further in the Directors' Remuneration Report on pages 87 to 113) are linked directly to the Group's performance against these KPIs. As the KPIs set out our strategic objectives, this ensures that executive performance is directly linked to Group strategy.

#### Independence of Non-Executive Directors

The Board considers the independence of each of the Non-Executive Directors on an ongoing basis, taking into account their integrity, their objectivity and their contribution to the Board and its committees. The Board is of the view that the following behaviours are essential for a Director to be considered independent:

- Provides an objective, robust and consistent challenge to the assumptions, beliefs and views of senior management and the other Directors;
- Questions intelligently, debates constructively and challenges rigorously and dispassionately;
- Acts at all times in the best interests of the Company and its shareholders and other stakeholders;
- Has a detailed and extensive knowledge of the Company's business and of the market as a whole which provides a solid background against which they can consider the Company's strategy objectively and help the executive directors develop proposals on strategy; and
- Has no close ties or material relationships with the Company, either directly or indirectly.

Having reviewed the independence of each of the Non-Executive Directors against these criteria, the Board concluded that all Non-Executive Directors demonstrated each of the required competencies to a high level and are, therefore, each considered independent by the Board.

The Board recognises that, in view of the characteristics of independence set out in the Code, length of service is an important factor when considering the independence of Non-Executive Directors and that Directors having served for longer than nine years may not be considered independent. Todd Hunt has served as a Non-Executive Director on the Board since May 2003. The Board is, however, satisfied that Todd's judgement has remained independent and that he has consistently displayed all of the behaviours expected of our independent Non-Executive Directors. Moreover, the Board is of the view that Todd brings an extremely valuable level of insight and challenge to Board discussions and that his extensive industry experience continues to be of significant benefit to the Company.

#### Re-election of Directors

In accordance with the Code, all of the Company's directors are subject to annual re-election by shareholders. As such, each of the current Directors, other than Alexander Berger, will seek re-election at the AGM to be held on Friday 17 May 2019.

#### Induction and development

New Directors receive a full and appropriate induction on joining the Board. This involves meetings with other Board members (in particular the Chairman), senior management and the Company's principal advisers. In addition, new Directors are provided with a comprehensive induction pack which contains a wide range of materials including:

Board	Board papers and minutes of previous meetings; schedule of matters reserved to the Board; list of Board and committee members and dates of appointment; and schedule of dates for Board and committee meetings.
Committees	Terms of reference for all Board Committees.
Risk	Terms of reference for Risk Management Committee and minutes of last meeting; current Group Risk Matrix and Risk Appetite Statement; FRC Guidance on Risk Management, Internal Control and Related Financial and Business Reporting.
Key policies	Cairn Operating Standards, Group Corporate Responsibility Guiding Principles; Group Code of Ethics; Anti-Bribery-and-Corruption (ABC) Management System; Dealing Code; Insider Lists Process; Procedures, Systems and Controls for Compliance with the Market Abuse Regulation, the Listing Rules and the Disclosure Guidance and Transparency Rules.
Organisation	Organisational Structure, Group Structure Chart; latest Annual Report and Accounts.
Governance	UK Corporate Governance Code; all supporting FRC Guidance; FRC Feedback Statement on UK Board Succession Planning; FRC Report Corporate Culture and the Role of Boards; ICSA and Investment Association Guidance on the Stakeholder Voice in Board Decision Making.
Legal/regulatory	Memorandum on continuing obligations of directors of premium listed companies; ICSA Guidance on Directors' General Duties; ICSA Guidance on Liability of Non-Executive Directors; GC 100 Guidance on Directors Duties; Section 172 and Stakeholder Considerations; GC 100 and Investor Group Guidance on Directors' Remuneration Reporting.
Insurance	Full details of Directors' and Officers' liability cover.

The Company also provides, on an ongoing basis, the necessary resources for developing and updating its existing Directors' knowledge and capabilities. In particular, the Company is committed to the provision of continuing professional development training for its directors. In 2018, the Company continued with its practice of providing a Directors' education programme consisting of a number of seminars for Board members, which are presented by the Company's external advisers/guest speakers/members of senior management, on subjects appropriate to the Company's business, including changes to legislation, regulation and market practice. During 2018, the subjects covered by these seminars included:

- An external overview of the exploration and production market and Cairn's position within it, delivered by Morgan Stanley and JP Morgan;
- A presentation on the 2018 UK Corporate Governance Code and related regulatory changes, delivered by PwC;
- A presentation on the current dynamics of the oil and gas industry and expected future trends, delivered by Wood Mackenzie; and
- An anti-bribery and corruption update delivered by Pinsent Masons.

These seminars are normally held prior to Board meetings and are attended by all Directors present at such meetings as well as the Chief Operating Officer and Director of Exploration (the Company keeps a record of attendance). Any Director may request that a particular subject be covered in a seminar. In addition, all media articles relating to the Company and all analyst reports relating to the Company are distributed to all Directors.

Finally, the Company ensures that Directors receive additional induction support and training ahead of any changes to their responsibilities. By way of example, Nicoletta Giadrossi received a comprehensive and tailored induction prior to taking over as Chair of the Remuneration Committee and becoming a member of the Audit Committee in May 2018.

Information and support

The Board has full and timely access to all relevant information to enable it to discharge its duties. Under the direction of the Chairman, the Company Secretary is responsible for ensuring good information flows within the Board and its committees and between management and Non-Executive Directors, as well as facilitating induction and assisting with professional development as required. The Company Secretary ensures the presentation of high quality information to the Board and its committees and that all papers and information are delivered in a timely fashion. Board and committee papers are delivered securely through an electronic platform.

The Company Secretary and Deputy Company Secretary are responsible for advising the Board, through the Chairman, on all corporate governance matters, and each Director has access to the advice and services of the Company Secretary and Deputy Company Secretary.

There is also a procedure agreed by the Board for Directors, in furtherance of their duties, to take independent professional advice if necessary, at the Company's expense.

Conflicts of interest

The Board has in place a procedure for the consideration and authorisation of conflicts or possible conflicts with the Company's interests. All Directors are aware of the requirement to submit details to the Company Secretary or Deputy Company Secretary of any current situations (appointments or otherwise) which may give rise to a conflict, or potential conflict, of interest. The Board will continue to monitor and review potential conflicts of interest on a regular basis.

Matters reserved to the Board and delegation of authority

The Board has a formal schedule of matters specifically reserved to it for decision, which is divided into categories covering different types of decisions, including: corporate; Board/Directors; financial/operational; and legal/regulatory.

By way of example, some of the matters which the Board considered and/or approved during 2018 and Q1 2019 were:

Corporate	Board/Directors
The Company's 2017 and 2018 Annual Report and Accounts and 2018 Half Year Report	Changes to Board committees
The Company's 2018 AGM circular	Detailed review of succession planning
The Company's Risk Appetite Statement	
Review of the Company's Corporate Responsibility Management System	
Financial/Operational	Legal/Regulatory
The appropriateness of the Group going concern sign-off for the 2017 and 2018 full year accounts and 2018 half year Financial Statements	Oversight of the arbitration process seeking resolution of the Indian tax issue
The Company's viability statement	Approval of the Company's Modern Slavery Statement and its publication on the Company's website
The Company's annual work programme and budget	Approval of the Group Tax Strategy and its publication on the Company's website
Group Reserves and Resources	
Approval of new \$575m RBL Facility Extension	
Approval to submit Senegal SNE Exploitation Plan	
Final Investment Decision on the Nova Development	
Replacement of the Norwegian Exploration Finance Facility	

In addition to the above, the Board conducts an annual review of the effectiveness of the Company's internal controls (with ongoing monitoring of this throughout the year), an annual detailed strategy meeting, and an annual 'deep-dive' session on risk management.

The Board also has an approved set of financial delegations of authority to ensure clarity throughout the business concerning the distinction between financial matters which require Board approval and those that can be delegated to senior management.

The senior management structure beneath Board level remains unchanged from that disclosed in last year's corporate governance statement, with the Senior Leadership Team (SLT) and Management Team (MT) continuing to play a key role in supporting the Board.

## Corporate Governance Statement

### continued

#### Board and management committee structure



\* Further information on our Board committees is contained later in this statement on page 76 and in the separate Audit Committee Report, Nomination Committee Report and Directors' Remuneration Report.

In 2018, the SLT comprised the Chief Executive, the Chief Financial Officer, the Chief Operating Officer, the Director of Exploration, the Director of Corporate Affairs, the Directors for the UK/Norway and International regions and the General Manager, Senegal. The SLT is chaired by the Chief Executive and meets six times per year with those meetings scheduled in advance of Board meetings.

Key elements of the SLT's role include the following:

- Devising and generating the Company's strategy to be proposed to the Board for approval and implementing and communicating this strategy across the business;
- Implementing the business plan, the key performance indicators and annual work programme and budget following their approval by the Board;
- Considering business development and new venture projects prior to recommending these to the Board; and
- Providing leadership and guidance to the Company on vision, strategy, culture, corporate governance, corporate responsibility and HSE matters.

The members of the SLT are also members of the RMC, which identifies and reviews key business risks – further information on the role of the RMC is contained in the internal control section of this statement on page 78.

The MT is chaired by the Chief Operating Officer and meets formally six times per year with four of those meetings focusing on a quarterly performance review of the business.

The key elements of the MT's role include the following:

- Developing and executing the annual work programme and budget, which will deliver the Company's strategic objectives;
- Assessing and determining the mitigation plans for key business risks and ensuring that risks are captured and reviewed regularly;
- Coordinating operations and licence management along with resource allocation and organisational alignment to ensure timely and cost-effective delivery against approved budgets;
- Oversight of the Company's commitment to working responsibly; and
- Reviewing and approving the Company's Operating Standards.

The Exploration Leadership Team (ELT), which is chaired by the Director of Exploration, meets on a monthly basis to assist the Director of Exploration in delivering a robust exploration portfolio, with a particular focus on the following:

- Providing assurance that opportunities being pursued by new ventures are sufficiently value-added and meet Cairn's strategic objectives;

- Considering whether opportunities being pursued have acceptable subsurface, above ground and fiscal attributes to continue evaluation;
- Developing a timeline for each existing or proposed opportunity which drives to a decision, including drill or drop, as expeditiously as practical;
- Ensuring that the subsurface geoscience aspects of all exploration and appraisal and new venture opportunities align with Cairn's strategic objectives;
- Ensuring consistent, efficient screening and ranking of exploration opportunities, following initial data room assessment but prior to detailed evaluation, utilising the significant knowledge and experience of the team;
- Ensuring that the significant knowledge and experience of the team is utilised appropriately and consistently in the delivery of best practice across all areas of geological and geophysical (G&G) analysis in accordance with Cairn's business plan and core business principles; and
- Considering and/or seeking appropriate data subscriptions, purchases and academic collaborations to ensure rapid opportunity evaluation and capture.

#### Board meetings

During 2018, six scheduled meetings of the Board were held, with all of these meetings taking place over two consecutive days (the only exception to this being one shorter meeting held specifically to approve the Company's 2018 Half Year Report). The first day includes a CEO lunch with the Non-Executive Directors and (when applicable) a Board education session, followed by a report from the CEO and CFO and a management presentation, both of which form part of the formal business of the Board meeting.

The CEO and CFO report and management presentation provide a detailed update from senior management and other employees on key projects, assets or matters to be considered at the Board meeting, allowing opportunity for a technically rigorous discussion. This information allows the Board to more fully understand any risks or challenges to the business plan and strategy and also provides broad exposure to the employee base within the Company. The full Board then meets for dinner at the end of the first day, and is usually joined by the Chief Operating Officer and the Director of Exploration.

Board committee meetings are normally held on the second day or, depending on the number of committee meetings required, on both days. All Board committee meetings take place prior to the main part of the Board meeting so that the chair of each committee can provide a report to the Board. These are followed by the remainder of the formal business of the Board meeting and a Board lunch. The Chairman also holds a short meeting with the other Non-Executive Directors (without the Executive Directors) at the end of the second day.

Three of the Board meetings during 2018 were held at the Company's office in London and three were held at the Company's registered office in Edinburgh. Details of attendance at each of those Board meetings, and at meetings of each of the Board committees, are set out on page 75. Any Director who is physically unable to attend Board and committee meetings is given the opportunity to be consulted and comment in advance of the meeting by telephone or in writing. Video and telephone conferencing facilities are used on the rare occasions that Directors are not able to attend meetings in person.

The annual timetable for Board and committee meetings is discussed at least 18 months prior to its commencement allowing the Directors to plan their time accordingly. The Board and committees have agreed dates for all scheduled meetings in 2019 and 2020. This process ensures that the Chairman can be comfortable that each Director is able to devote sufficient time and resources to their role on the Board and, where relevant, its committees.

The formal agenda for each scheduled Board meeting is set by the Chairman in consultation with the Chief Executive and the Company Secretary. The system for establishing agenda items means that the Chairman, the Board and each of the Board committees have the



confidence that all required items are included on their agenda at the most appropriate time of the year and that there is sufficient time allocated for discussion, allowing the Directors to discharge their duties effectively.






























Formal minutes of all Board and committee meetings are circulated to all Directors prior to the subsequent Board meeting and are considered for approval at that Board meeting. In addition, the members of the Board are in frequent contact between meetings regarding progress of the Group's business plan, one example being an annual Board update call in January ahead of the scheduled Board meetings for the year. There is also a procedure in place to allow Board

meetings to be convened at short notice where required to deal with specific matters which need to be considered between scheduled Board meetings.

As noted above, the Non-Executives have a practice of meeting informally at the end of each Board meeting without Executive Directors being present. At these Non-Executive forums, the Non-Executive Directors are invited by the Chairman to bring forward any matter pertaining to the business of the Board that they believe would benefit from discussion in such forum. This practice also applies after Board committee meetings to ensure that Non-Executive Directors can discuss any relevant issues arising from those meetings without management being present.

Directors' attendance at 2018 Board and committee meetings

The table below sets out the attendance record of each Director at scheduled Board and Board committee meetings during 2018.

	Board	Audit Committee	Remuneration Committee	Nomination Committee	Governance Committee
Meetings held during 2018 <sup>1</sup>	6	4	4	4	2
	Meetings attended	Meetings attended	Meetings attended	Meetings attended	Meetings attended
<b>Executive Directors</b>					
Simon Thomson (CEO)		n/a <sup>2</sup>	n/a <sup>2</sup>		n/a
James Smith (CFO)		n/a <sup>3</sup>	n/a	n/a	
<b>Non-Executive Directors</b>					
Ian Tyler (Chairman)		n/a <sup>4</sup>			
Peter Kallos (Senior Independent Director)		n/a			n/a
Todd Hunt		n/a	n/a	n/a	n/a
Alexander Berger			n/a	n/a	
Keith Lough			n/a		
Nicoletta Giadrossi				n/a	n/a
<b>Former Non-Executive Directors</b>					
Iain McLaren <sup>7</sup>					n/a
Jackie Sheppard <sup>8</sup>		n/a		n/a	

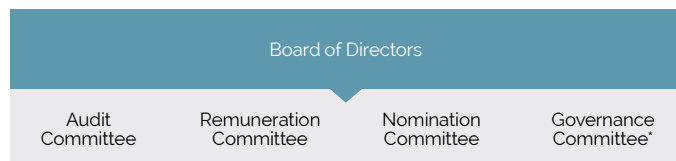
Notes:  
n/a not applicable (where a Director is not a member of the committee).  
1 During 2018, certain Directors who were not committee members attended meetings of the Audit Committee, Remuneration Committee, Nomination Committee and Governance Committee by invitation. These details have not been included in the table.  
2 Simon Thomson is not a member of the Remuneration Committee but attends its meetings by invitation (other than parts of meetings where he would be conflicted). Mr Thomson also attends Audit Committee meetings by invitation.  
3 James Smith is not a member of the Audit Committee but attends its meetings by invitation.  
4 Ian Tyler is not a member of the Audit Committee but attends its meetings by invitation.  
5 Todd Hunt attended all of the scheduled Board meetings held over two days but was unable to attend the shorter Board meeting held specifically to approve the Company's 2018 Half Year Report. Mr Hunt provided his comments and confirmed his approval of the Half Year Report in advance of the meeting.  
6 Nicoletta Giadrossi was appointed a member of the Audit Committee with effect from 15 May 2018. The number of meetings she attended is stated from that date.  
7 Iain McLaren retired as a Non-Executive Director on 15 May 2018. The number of meetings he attended is stated up to that date.  
8 Jackie Sheppard retired as a Non-Executive Director on 31 December 2018. The number of meetings she attended is stated up to that date.

## Corporate Governance Statement

### continued

#### Board Committees

##### Board committee structure during 2018



\* The Governance Committee was abolished with effect from 31 December 2018 (see below).

Each of the Board committees is provided with all necessary resources to enable them to undertake their duties in an effective manner and has formal terms of reference approved by the Board. Copies of the terms of reference, which have recently been reviewed and updated in line with the 2018 version of the Code, are available on the Company's website. The Company Secretary acts as secretary to the Remuneration and Nomination Committees and the Deputy Company Secretary acts as secretary to the Audit Committee. The minutes of all committee meetings are circulated to all Directors.

In line with best practice, more detailed reports from the Audit and Nomination Committees are presented as separate reports (on pages 80 to 86) rather than including these in the Corporate Governance Statement. In addition, full details of the Company's remuneration policy are given in the separate Directors' Remuneration Report on pages 87 to 113. Summary details of the composition of each committee and meetings held during 2018 are set out below.

#### Audit Committee

The members of the Audit Committee during the year were as follows:

- Keith Lough (Chair with effect from 15 May 2018);
- Alexander Berger;
- Nicoletta Giadrossi (appointed as a member of the Committee with effect from 15 May 2018); and
- Iain McLaren (former Chair, retired as a Non-Executive Director on 15 May 2018).

The Audit Committee met four times during 2018 and currently comprises three independent Non-Executive Directors. The Chairman of the Board is not a member of the Committee but attends its meetings by invitation. Further information on the role, responsibilities and work of the Audit Committee is included in the Audit Committee Report on pages 80 to 84.

#### Remuneration Committee

The members of the Remuneration Committee during the year were as follows:

- Nicoletta Giadrossi (Chair with effect from 15 May 2018);
- Ian Tyler;
- Peter Kallos;
- Iain McLaren (retired as a Non-Executive Director on 15 May 2018); and
- Jackie Sheppard (former Chair until 15 May 2018, retired as a Non-Executive Director on 31 December 2018).

The Remuneration Committee met four times during 2018 and currently comprises three independent Non-Executive Directors. The Chief Executive is not a member of the Committee but attends its meetings by invitation. The Committee's remuneration advisers, Aon Hewitt Limited, also attended some of the Committee's meetings. None of the members of the Committee, nor the Chief Executive nor the Chairman, participated in any meetings or discussions relating to their own remuneration. The Committee has established a practice of meeting informally without any Executive Directors or advisers present after each Committee meeting to allow the Non-Executives to discuss any matter which has arisen in the meeting (or relating to the duties of the Committee) which they believe would benefit from discussion in such forum.

Further information on the role, responsibilities and work of the Remuneration Committee is included in the Directors' Remuneration Report on pages 87 to 113.

#### Nomination Committee

The members of the Nomination Committee during the year were as follows:

- Ian Tyler (Chair);
- Simon Thomson;
- Keith Lough;
- Peter Kallos;
- Nicoletta Giadrossi (appointed as a member of the Committee with effect from 15 May 2018); and
- Iain McLaren (retired as a Non-Executive Director with effect from 15 May 2018).

The Nomination Committee met four times in 2018. The Chairman and three of the Company's independent Non-Executive Directors are members of the Committee. In addition, to ensure continuing executive input on nomination matters, the Chief Executive is also a member of the Committee.

Further information on the role, responsibilities and work of the Nomination Committee is included in the separate Nomination Committee Report on pages 85 and 86.

#### Governance Committee

The members of the Governance Committee during the year were as follows:

- Jackie Sheppard (Chair);
- Alexander Berger;
- Ian Tyler; and
- James Smith.

The Governance Committee met twice in 2018 and was comprised of a majority of Non-Executive Directors. The ongoing role of the governance committee was reviewed in late 2018 and, in view of the infrequency of its meetings and the importance of full Board oversight of the Company's corporate governance activities, it was decided this Committee should be abolished with effect from 31 December 2018. The responsibilities of the governance committee have subsequently been assumed by the Board and/or other Board committees as appropriate.

#### Shareholders and Annual General Meeting (AGM)

Communications with shareholders are given high priority by the Board. The Company has implemented the provisions of the Companies Act 2006 regarding electronic communication with its shareholders, in order to give shareholders more choice and flexibility in how they receive information from the Company. Cairn responds promptly to correspondence from shareholders and launched a new Company website during 2017, which contains a wide range of information on the Company, including a dedicated investor relations section.

In order to ensure that the members of the Board develop an understanding of the views of major shareholders, there is regular dialogue with institutional shareholders, including meetings with executive management after the announcement of the year end and half year results. The Chairman is available to attend a number of these meetings. The Board is kept informed of any issues raised by shareholders both as a standing agenda item in Board papers and through feedback at Board meetings and following results or other significant announcements. In addition, the Company maintains an investor relations database which details all meetings between the Company and its investors or other related stakeholders. All analyst reports relating to the Company are also distributed to the Board.

AGM details (2018 and 2019)	Overview
2018 AGM: held on Tuesday 15 May 2018 The Caledonian Waldorf Astoria Hotel, Edinburgh	<ul style="list-style-type: none"><li>- Full Director attendance</li><li>- Highest votes in favour &gt;99% for five resolutions</li><li>- No resolutions with &lt;93% in favour</li></ul>
2019 AGM: to be held on Friday 17 May 2019 The Caledonian Waldorf Astoria Hotel, Edinburgh (full details in Notice of AGM)	<ul style="list-style-type: none"><li>- Full Director attendance expected</li><li>- 12 ordinary resolutions and four special resolutions being proposed to shareholders</li></ul>

A list of the Company’s major shareholders can be found in the Directors’ Report on page 116. The Company recognises that the success of the comply-or-explain approach under the Code depends on an ongoing and open dialogue with shareholders, and remains committed to engaging with shareholders, as well as proxy voting agencies, on any matter which they wish to discuss in relation to the Company’s governance.

The Board uses the AGM to communicate with private and institutional investors and welcomes their participation. It is policy for all Directors to be present at the AGM, with the Chair of each of the Board committees expected to attend and be prepared to answer shareholder questions on areas within their remit.

As part of our commitment to transparency we look to involve shareholders fully in the affairs of the Company and to give them the opportunity at the AGM to ask questions about the Company’s performance and activities. Details of resolutions to be proposed at the AGM on 17 May 2019 and an explanation of each resolution can be found in the separate Notice of AGM.

The proxy votes for and against each resolution, as well as abstentions, will be counted before the AGM and the results will be made available following the meeting after the shareholders have voted in a poll on each resolution. Both the Form of Proxy and the poll card for the AGM include a ‘vote withheld’ option in respect of each resolution, to enable shareholders to abstain on any particular resolution. It is explained on the Form of Proxy that a ‘vote withheld’ is not a vote in law and will not be counted in the calculation of the proportion of the votes ‘for’ or ‘against’ a resolution.

**Information pursuant to the Takeover Directive**

The Company has provided the additional information required by the Disclosure and Transparency Rules of the UK Listing rules (and specifically the requirements of DTR 7.2.6 in respect of directors’ interests in shares; appointment and replacement of directors; powers of the directors; restrictions on voting rights and rights regarding control of the Company) in the Directors’ Report.

**Internal control**

The Board has overall responsibility for the Group’s system of internal control, which includes all material controls, including financial, operational and compliance controls and related risk management, and for regularly reviewing its effectiveness. The system of internal control is designed to identify, evaluate and manage significant risks associated with the achievement of the Group’s strategic objectives. Because of the limitations inherent in any system of internal control, Cairn’s system is designed to meet its particular needs and the risks to which it is exposed, with a focus on managing risk rather than eliminating risk altogether. Consequently, it can only provide reasonable and not absolute assurance against material misstatement or loss.

The Company has in place an Integrated Internal Control and Assurance Framework (the ‘Framework’), which plays a critical role in setting out how the Company manages and assures itself that the risks relating to the achievement of corporate vision, strategy and objectives are effectively controlled. The Framework is based on the Committee of Sponsoring Organisations (COSO) framework and its five key components, which is a commonly used and recognised international framework for considering internal control systems. The COSO framework seeks to help organisations develop systems of internal control which help facilitate the achievement of business objectives and improvements in Company performance. The COSO framework also supports organisations in adapting to increasingly complex business environments and managing risks to acceptable levels with the aim of safeguarding shareholders’ interests and Company assets.

The Framework has been in place for the 2018 financial year and up to the date of approval of the Annual Report and Accounts. The Board, supported by the Audit Committee, has carried out a review of the effectiveness of the systems of internal control during 2018 and will ensure that a similar review is performed in 2019. In so doing, the Board and Audit Committee took into account the assurance provided by the Chief Executive in respect of the effectiveness of the Group’s system of internal control. The Board is accordingly satisfied that effective controls are in place and that risks have been mitigated to a tolerable level across the Group in 2018.

Particular attention has been placed by the Company’s management on ensuring that an effective system of internal control has been maintained during the year in relation to the key risks in the Company’s business activities. Enhancements have been made during 2018 to the following key controls, business processes and procedures:

- The Board completed a risk workshop which focused on assessing above ground risks across the portfolio. The objective of the workshop was to evaluate the risk profile of the current portfolio in relation to above ground risk and consider how it may evolve over time. The outputs were then contrasted against the risk parameters outlined in the Group Risk Appetite Statement to ensure they remain appropriate;
- EY, the Group’s internal auditor, delivered the annual internal audit plan which consisted of a number of risk areas identified from the risk register. Topics included the General Data Protection Regulation (GDPR); hydrocarbon sales; Mexico new country set-up; and key financial controls. The Group has been working throughout the year to implement the identified improvements;
- Enhancements were made to the Cairn Operating Standards including the addition of a new section on external reporting;
- Enhancements were also made to the Group Corporate Responsibility Management System, comprising the inclusion of findings from an ISO45001 gap analysis and an OSPAR 2003/5 re-verification audit; and
- Training was delivered to employees on anti-bribery and corruption, cyber security, GDPR, and in relation to the Corporate Criminal Offence of Failure to Prevent the Facilitation of Tax Evasion.



## Corporate Governance Statement

### continued

The following describes the key elements of the Framework and the processes used by the Board during 2018 to review the effectiveness of the system and the approach to be taken in 2019.

#### 1. Strategic direction

The Company's strategy and business plan are proposed by the SLT and approved by the Board. The Chief Executive is responsible for managing the Company's business and implementing the Company's strategic objectives in consultation with the Board and SLT. The Chief Executive is also responsible for implementing the decisions of the Board and its committees and driving performance measured against the Company's KPIs.

#### 2. Operating management

The Company operates three regional units covering different countries and assets and with various partners on both an operated and non-operated basis. The assets within each region are the principal focus for our regional managers, who are tasked with delivering the strategic objectives for their particular region, with a combination of operational and technical teams as well as functional departments providing support to each of the assets. The implementation of the Cairn Operating Standards supports this process, providing assurance, standards and consistency in the delivery of our strategic objectives.

The Executive Directors continue to be supported by the SLT as well as by the MT and ELT. Further information on these teams and their remit can be found on page 74. There are also a number of functional department heads whose roles include providing expert input and challenge to the Company's work programmes, budgets and business plan; and supplying the Directors with full and accurate information with which to make statements on the adequacy of internal control.

The Company refreshes its business plan, work programme and budget on an annual basis in line with its overall strategy. These documents start at asset level before being consolidated at regional and Company levels. The business plan sets out detailed objectives and KPIs for each asset and supporting functional departments, and is consolidated into the Company's strategic planning. After an iterative process, the annual business plan, work programme and associated budget are presented to the Board for approval.

The asset management teams then have the required authority to implement the business plan and to deliver the agreed work programmes within the approved budget and delegations of authority, and in accordance with the internal control framework.

#### 3. Risk management

The Board is responsible for maintaining sound risk management and internal control systems across the Cairn Group. The Board must satisfy itself that the significant risks faced by the Group are being managed appropriately and that the system of risk management and internal control is sufficiently robust to respond to internal or external changes in the Group's business environment.

The RMC continues to be responsible for the development of risk management strategy and processes within the Company and for overseeing the implementation of the requirements of this strategy. It does this by ensuring that the framework for the identification, assessment, mitigation and reporting on all areas of risk is fit for purpose and that appropriate assurance arrangements are in place in relation to these risks to bring them within the Risk Appetite Statement agreed by the Board.

To supplement the role of the RMC, the Group Risk Management Procedure defines the processes through which Cairn seeks to systematically identify, analyse, assess, treat and monitor the business risks faced by the Group. The Group Risk Management Procedure also identifies the risk management organisational structure through which business risks are managed and regularly reviewed at operating, asset, country and Company levels. Asset, project, country and functional level risk registers are used to capture, assess, monitor and review risks before the principal risks are consolidated into the Group risk register.

In 2018, risk management updates were presented at each Board meeting and as part of an annual process, the Board undertook a strategic risk workshop in November 2018. As mentioned above, the focus of the 2018 workshop was on assessing 'above ground' risks across the Group's portfolio.

The RMC, which continues to meet on a quarterly basis, is currently chaired by the CFO and comprises the Executive Directors and senior functional management. The internal auditor also attends RMC meetings, in order to ensure integration of the Group's internal audit plan with the risk management process. Regular MT risk sessions were also held during 2018 to manage and facilitate the assessment and treatment of business risks that may affect the Company's ability to deliver its strategy.

Enhancements to our approach to risk management during 2018 included the following:

- The MT formally conducted a review of the risks, mitigations and actions identified on the Group risk register each quarter to ensure ownership for the risks, mitigations and actions were clearly assigned and implementation dates for actions were tracked; and
- The RMC reviewed a gross to net risk assessment of principal risks, in order to gain a deeper understanding of high impact risks and identify any areas where there is a reliance on controls and mitigating actions.

The RMC reports on the Company's risk profile to both the Audit Committee and the Board. Additionally, the Audit Committee and the Board receive internal reviews of the effectiveness of internal controls relative to the key risks. The conclusion of the Board following these reviews during 2018 is that the internal controls in respect of key risks are effective.

#### 4. Assurance

The 'three lines of defence' framework adopted by the Board provides three levels of assurance against the risks facing the Company: first of all at the operational level; secondly through overview by functional management and the RMC; and thirdly through internal or joint venture audits.

The integrated internal control and assurance framework document includes a description of the Company's business and assurance models and of its organisation and committee structure and defines the relevant roles and responsibilities. The framework defines the key policies and procedures which govern the way in which Cairn conducts its business and is therefore a core part of its system of internal control.

During 2018, the Directors reviewed the effectiveness of the Company's system of financial and non-financial controls, including operational and compliance controls, risk management and high-level internal control arrangements through the completion of internal control self-assessment questionnaires. These questionnaires, which are tailored to each region or function, are designed to provide an internal assessment of the effectiveness of key controls for the Group's principal risks.

Additionally, assurance maps for principal risks are developed, which outline the key sources of assurance across the three lines of defence. The three lines of defence model is a method of assessing different sources of assurance the Group can rely on when analysing key risks and controls. Assurance is gained through the application of the business management system which directs the day-to-day running of the business (first line), the oversight functions within Cairn which provide challenge to the risk and control environment (second line) and any third party reviews the Group instructs to assess the status of a risk/control (third line). The assurance maps help identify potential areas of control weakness and/or ineffective use of assurance resources across the Group, which influenced the topics included in the 2018 Group internal audit plan.

The Directors derived assurance from the following internal and external controls during 2018:

- A regularly updated schedule of matters specifically reserved for decision by the Board;
- Implementation of the Cairn Operating Standards for key business activities;
- An appropriate organisational structure;
- Control over non-operated joint venture activities through delegated representatives;
- Specific delegations of authority for all financial transactions and other key technical and commercial decisions;
- Segregation of duties where appropriate;
- Business and financial reporting, including KPIs;
- Functional management reviews;
- An annual 'letters of assurance' process, through which asset and functional managers review and confirm the adequacy of internal financial and non-financial controls and their compliance with Company policies, and report any control weaknesses identified in the past year and actions taken in respect of weaknesses identified in the prior year;
- A 'letter of assurance' from the Chief Executive confirming the adequacy of internal controls within the Company in line with its policy, and reporting of any control weaknesses identified in the past year and actions taken in respect of weaknesses identified in the prior year;
- An annual internal audit plan, which is approved by the Audit Committee and Board and is driven by risks and key controls;
- Reports from the Audit Committee and RMC;
- Reports from the external auditor on matters identified during its statutory audit;
- Reports from audits by host Governments and co-venturers;
- Independent third party reviews; and
- The skills and experience of the workforce.



**Ian Tyler**  
Chairman  
11 March 2019

## Audit Committee Report

### The Audit Committee Members and meetings in 2018

The Audit Committee continued to support the Board in its responsibilities which include setting the Company’s strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship.

	Member since	Meetings attended
Keith Lough (Chair)	05/15	
Alexander Berger	03/12	
Nicoletta Giadrossi <sup>1</sup>	05/18	
Iain McLaren <sup>2</sup>	07/08	

Note:  
1 Nicoletta Giadrossi was appointed a member of the Audit Committee with effect from 15 May 2018. The number of meetings she attended is stated from this date.  
2 Iain McLaren retired as a Non-Executive Director on 15 May 2018. The number of meetings he attended is stated up to that date.

Dear Shareholder,

The Audit Committee’s primary responsibilities include the integrity of the Group’s Financial Statements, the effectiveness of the Group’s risk management and internal assurance processes and related governance and compliance matters. With increasing performance history from the Group’s two UK producing assets, the Committee’s activities in the current year have had particular focus on the internal process for reserve estimation and the consequent impact on the Financial Statements as well as monitoring and accounting for any developments in the ongoing Indian tax dispute.

#### Composition and summary of Audit Committee meetings during the year

I was appointed Chair of the Audit Committee at the Group’s AGM held on 15 May 2018, having previously served on the committee for three years. My predecessor as Chair, Iain McLaren, retired from his position at the AGM having served on the Committee for the previous nine years.

Serving with me on the Audit Committee are two of my fellow Non-Executive Directors; Alexander Berger, who served for the duration of the full year under review, and Nicoletta Giadrossi, who formally joined the Committee during the year at the AGM, but attended a number of preceding meetings prior to her appointment. Both Alexander and Nicoletta are considered by the Board to be independent. Ian Tyler also attended meetings in his capacity as Chairman of the Cairn Energy PLC Board but is not a member of the Committee.

The members of the Committee have been chosen to provide the wide range of financial and commercial experience needed to fulfil these duties. I am a qualified accountant with recent and relevant financial experience. Alexander and Nicoletta both bring comprehensive industry knowledge to the Committee.

At our request, the CFO, the Chief Executive (in his capacity as executive responsible for internal audit) and senior members of the Finance and Risk and Compliance departments attended each of these meetings. Additionally, both internal and external auditors also attended each meeting. I also met privately with the external audit partner to discuss matters relevant to the Group throughout the year.

The Audit Committee met four times in 2018, with meetings arranged around the key external reporting dates. The first meeting in March 2018 focused on the 2017 year end external audit process (reported in the 2017 Annual Report and Accounts). Meetings in June and August both centred on the Group’s half year reporting and a November meeting focused on planning for the 2018 year-end cycle and external audit process and internal work programme for 2019. Subsequent to the year end, a further meeting was held in March 2019 to conclude on the 2018 audit and significant accounting issues.

At each meeting the Committee receives an updated report from the external auditors which either explains their plans and scope for a forthcoming audit or review, or contains the conclusions from that audit or review. The Audit Committee also receives a report on the internal audit process, tracking the progress of internal audits and reviewing their output and recommendations.

The Audit Committee also closely monitors Cairn’s Risk Management system, reviewing the activities of the Group’s Risk Management Committee and the Group’s risk management project plan with further reviews and challenges of the Group’s risk registers and opportunity matrix at each Committee meeting.

Other business covered by the Committee includes the annual approval of corporate assumptions and annual review of the Group’s policy on non-audit services and the Group’s Whistleblowing Policy.



Communication with the FRC

During the year, the FRC's Audit Quality Review ('AQR') team conducted a review of the audit carried out by the Group's external auditor, PricewaterhouseCoopers LLP ('PwC') on the Group's 2017 year-end financial statements. As part of this review I met with staff members of the FRC in July 2018 and the final report was issued to me in November 2018. There were no significant matters arising. The points raised were discussed at the December Audit Committee and we were entirely satisfied with the changes proposed by PwC.

In December 2018, the Company was notified that the FRC's Conduct Committee had reviewed Cairn's Annual Report and Accounts for the year ending 31 December 2017. The review by the Conduct Committee provides no assurance that the report and accounts are correct in all material respects but considers compliance with reporting requirements. I am pleased to report that there were no questions or queries raised by the FRC following this review.

Responsibilities and activities during the year

The Terms of Reference of the Committee take into account the requirements of the UK Corporate Governance Code and are available for inspection on the Group's website. A summary of the Committee's principal responsibilities and activities during the year is set out below.

	Principal responsibilities of the Committee	Key areas formally discussed
Financial statements	<ul style="list-style-type: none"><li>- Monitoring the integrity of the Financial Statements of the Group and formal announcements relating to the Group's financial performance;</li><li>- Reviewing any significant financial reporting judgements; and</li><li>- Reviewing the appropriateness of accounting policies, their consistent application and disclosures in financial statements.</li></ul>	<ul style="list-style-type: none"><li>- Going concern conclusions and linkage to the viability statement;</li><li>- Significant accounting issues at the half-year and year-end (see below); and</li><li>- Approval of the Group's corporate assumptions (those impacting impairment testing are summarised in section 2 of the Financial Statements).</li></ul>
External audit	<ul style="list-style-type: none"><li>- Overseeing the Group's relationship with the external auditors, including:<ul style="list-style-type: none"><li>• making recommendations to the Board as to the appointment or reappointment of the external auditor;</li><li>• reviewing their terms of engagement and engagement for non-audit services; and</li><li>• monitoring the external auditor's independence, objectivity and effectiveness.</li></ul></li></ul>	<ul style="list-style-type: none"><li>- Reviewing the external auditor's scope and audit plan for the 2018 year end;</li><li>- Discussing the materiality levels set by the auditor;</li><li>- Approval of the auditor's remuneration;</li><li>- Consideration of the results of the external audit with the auditor and management; and</li><li>- Assessment of the effectiveness of the external audit (see overleaf).</li></ul>
Internal risk management and assurance	<ul style="list-style-type: none"><li>- Reviewing the Group's internal financial controls and internal control and Risk Management systems and oversight of the Group's Risk Management Committee; and</li><li>- Monitoring and reviewing the effectiveness of the Group's internal audit function.</li></ul>	<ul style="list-style-type: none"><li>- Reviewing the Group's corporate and operational risk register;</li><li>- Reviewing reports on the activities of the Risk Management Committee;</li><li>- Selection of internal audit work planned for 2019 and consideration for future years; and</li><li>- Assessment of key findings raised from internal audits conducted in the year.</li></ul>
Whistleblowing procedures	<ul style="list-style-type: none"><li>- Reviewing the Group's whistleblowing procedures and ensuring that arrangements are in place for the proportionate and independent investigation of possible improprieties in respect of financial reporting and other matters and for appropriate follow-up action.</li></ul>	<ul style="list-style-type: none"><li>- Reviewing and approving of the Group's whistleblowing procedures.</li></ul>
Other matters	<ul style="list-style-type: none"><li>- Reviewing the Group's policy for approval of non-audit work to the Company's auditor; and</li><li>- Reviewing booking of Group reserves and resources.</li></ul>	<ul style="list-style-type: none"><li>- Review and approval of the Group policy for approval of non-audit work to the Company's auditor; and</li><li>- Classification of reserves and resources for disclosure in the Annual Report.</li></ul>

The review of the Annual Report and Accounts for fair, balanced and understandable presentation and disclosure, while considered by the Audit Committee, is formally performed and approved by the full Cairn Energy PLC Board.

Audit Committee Report continued

External audit

The current version of the UK Corporate Governance Code states that FTSE 350 companies should put the external audit contract out to tender at least every 10 years. Cairn complied with this provision before it came into force and completed an external audit re-tendering process in 2013. PwC were subsequently appointed as external auditor of the Group, on the recommendation of the Audit Committee at that time. The 2018 year-end audit therefore represents the sixth year of PwC's tenure as Group auditor.

With effect from the June 2018 Committee meeting, Lindsay Gardiner has replaced Michael Timar as PwC's lead audit partner on the Cairn engagement. Lindsay was not previously involved with the audit of the Group or its subsidiaries.

2018 year-end significant accounting issues

At each reporting date, the Audit Committee review the results for the relevant period and the key assets and liabilities in the Group balance sheet, focusing on the key estimates, assumptions and judgments that management has used in applying the relevant accounting standard.

The key issues identified at the December 2018 year end are consistent with those identified in previous years, albeit updated to reflect current developments. Those issues identified are:

- Impairment testing of oil and gas assets and related Goodwill, notably the Group's producing assets in the UK North Sea;
- Lease accounting for the Kraken FPSO;
- Recognition of deferred tax assets and liabilities; and
- Updates on the Indian tax dispute including accounting for the sale of shares in Vedanta Limited.

Impairment testing on oil and gas assets and goodwill

With a full year's production history now available for the Group's producing assets in the North Sea, management has revised production profile assumptions used to model future profitability of the assets for use in impairment testing.

Audit Committee action	Audit Committee conclusions
The Committee closely monitored changes to the Group's reserves and resources of oil and gas and related production profiles as performance history of Cairn's two producing fields expanded. Performance issues on Kraken and consequential reserve adjustments were challenged by the Committee, with the Committee seeking direct explanation from the Group's Principal Petroleum Engineer. Where reserves volumes deviated from those prepared by independent third parties, the Audit Committee sought a full and detailed explanation as to why this was the case and what impact such differences caused on the valuation of the Group's assets in the impairment test.	The Committee was satisfied that changes to reserve volumes and production profiles were properly recorded and in accordance with the Group's standard operating procedures which follow industry best practice. The Committee also challenged management on the difference between internal and third-party reserve estimates and were satisfied with the explanations provided.
The Committee also reviews and approves the remaining assumptions and estimates that are key inputs into corporate modelling for impairment tests including, but not limited to, oil and gas price assumptions and discount rates.	The Audit Committee challenged management on the key corporate assumptions that remain unchanged from the prior year. The Committee sought assurance from the external auditor that assumptions did not significantly deviate from market consensus. The Committee approved the assumptions, which are used in the year-end impairment tests.
The Committee also reviews the impairment test calculations and ensures that impairment charges are recognised in a timely manner within the Group Financial Statements.	The Committee was satisfied that an appropriate impairment charge was recorded in the Financial Statements and that additional sensitivity analysis provided in the Financial Statements was appropriate, reflecting the key assumptions at this time.

Accounting for FPSO lease agreements in the North Sea

During the year under review, the operator of the Kraken asset negotiated a revised lease agreement for the FPSO with the joint venture issuing a final acceptance certificate in exchange for concessions by the lessor.

Audit Committee action	Audit Committee conclusions
The Committee reviewed adjustments proposed by management at the time of the amendment to the lease agreements. The Committee focused on the amount of the minimum lease commitment to ensure that the asset and liability recorded in the Financial Statements were properly measured in accordance with the standard.	The Audit Committee reviewed the changes to the lease liability and associated right-of-use asset and concluded that the adjustments were a fair reflection of the lease contract and that assumptions made by management were appropriate (see note 3.4).

Accounting for Vedanta Limited shares and related dividends

Hearings for the international arbitration with regard to the ongoing Indian tax dispute were concluded during the year. In advance of the arbitration hearings, the IITD enforced sale of the majority of Cairn's ordinary shareholding in Vendata Limited and seized proceeds on redemption of preference shares in part-settlement of the disputed tax demand.

Audit Committee action	Audit Committee conclusions
The Committee reviewed the accounting arising from the sale of ordinary shares and redemption of preference shares.	The Committee agree with managements calculation of the loss on derecognition of the shares held in Vedanta Limited, noting the recording of losses on falls in market value in the period prior to disposal as a separate line item.
The Committee also reviewed management's conclusions for not recognising either an asset for the recovery of the proceeds of the share sales from the IITD relating to an uncertain tax provision, or the recognition of a liability in relation to Cairn's exposure to the remaining tax demand.	The Committee continued to support management's view on the non-recognition of either asset or liability pending the final award from the arbitration panel. Management's views were also supported by the Group's legal advisers who presented to the full Board during the year under review.

Non-recognition of UK deferred tax asset

At each reporting date the Committee receive an update on the Group's unrecognised deferred tax losses, including UK ring-fenced tax losses, together with management's assessment of whether a deferred tax asset should be recognised.

Audit Committee action	Audit Committee conclusions
The Committee considers in detail management's assessment of whether a deferred tax asset should be recognised, challenging management on the downside sensitivities used to determine probable future taxable profit.	After challenge, the Committee was satisfied with management's conclusion that no deferred tax asset should be recognised. The Committee also concluded that disclosures in the Financial Statements (see section 5 of the Financial Statements) were appropriate.
In light of FRC AQR comments on this subject, the Committee reviewed the clarity of disclosures in the Financial Statements on this matter.	

Going concern and viability

At each reporting date, management considers the factors relevant to support a statement of going concern included in note 1.2 to the Financial Statements. The Audit Committee reviews and challenges management's conclusions so that we may, in turn, provide comfort to the Board that management's assessment has been considered, challenged and is appropriate.

Given the volatile price environment facing the oil and gas industry, the Audit Committee carefully reviewed management's going concern conclusion based on the Group's latest cash and debt position and the forecast exploration and appraisal spend in the period ending 31 March 2019. This confirmed that the Group is fully funded to meet its work programme and firm commitments over the period of 12 months from the date of signing the Financial Statements. The Audit Committee subsequently recommended to the Board that the Group continues to use the going concern basis in preparing its Financial Statements.

The Committee also reviews and challenges management on the sensitivity analysis performed to support the Group's Viability Statement, included in the Strategic Report on page 33. Following this challenge, the Committee recommended approval of the Viability Statement to the Board.

Assessment of external audit process

The Committee has an established framework to assess the effectiveness of the external audit process. This comprises:

Audit Committee action	Audit Committee conclusion
A review of the audit plan including the materiality level set by the auditor and the process they have adopted to identify financial statement risks and key areas of audit focus (summarised in the Independent Auditor's Report on pages 118-123).	The Committee accepted the level of materiality set by the auditor.
A review of correspondence received from the FRC AQR team, seeking clarification from the external auditor on the matters raised and the improvements to the audit process arising from the review.	The Audit Committee was entirely satisfied with PwC's proposed changes resulting from the AQR review.
A review of the Audit Quality Inspection ('AQI') report on our auditor published by the FRC with particular emphasis on any key messages applicable to Cairn.	There were no matters raised in the AQI report that caused concern for the Audit Committee.
A review of the final audit report, noting key areas of auditor judgement and the reasoning behind the conclusions reached.	The Audit Committee reviewed findings on the key audit issues identified. The Committee was satisfied that appropriate challenge had been made of management and that the audit process was robust.
Regular communications through formal papers submitted and presentations to the Committee and meetings between myself as Chair of the Audit Committee and the lead audit engagement partner.	The audit plan for the year ending 31 December 2018 was presented to the Audit Committee in June 2018 and is summarised in the Independent Auditor's Report on pages 118-123.
A formal questionnaire issued to all Audit Committee members and senior Cairn management who are involved in the audit covering the robustness of the audit process, the quality of delivery, the quality of reporting and the quality of the auditor's people and service.	No matters of significance were reported.



## Audit Committee Report

### continued

#### Assessment of external audit process continued

Of particular focus for the Committee is the assessment of the judgement applied by PwC during each stage of the audit process including setting audit materiality, identifying the risks to the Financial Statements, evaluating audit findings and communicating those areas of judgement to the Committee.

The Audit Committee noted the level of planned materiality and agreed on the levels of misstatements to be reported to the Committee. With the reduced level of net assets held in the Group Balance Sheet following the derecognition of the shares in Vedanta Limited, the Committee noted the fall in materiality for the current year's audit over previous years. The final audit report was presented to the Audit Committee in March 2019. After thorough discussion, the Committee agreed with the conclusions reached by the auditor, noting the degree of judgement around areas of significant audit risk.

#### Auditor independence and provision of non-audit services

We have a long-established policy in relation to the supply of non-audit services by the external auditor. The Group will engage an external adviser to provide non-audit services on the basis of the skills and experience required for the work, where benefit will be derived as a result of the third party's knowledge of the Group and at a reasonable cost. These advisers may include the Group's external auditor, under a restricted set of circumstances, although, before the engagement commences, the Audit Committee must be satisfied that the auditor's objectivity and independence would not be compromised in any way as a result of being instructed to carry out those services.

The policy on approval of non-audit fees for the Group's auditor is re-approved annually. This Group's policy was updated in 2017 to reflect the FRC's 'Revised Ethical Standards' applicable to audit firms. Subsequently all non-audit fees should now be approved by the Audit Committee in advance of the engagement with a practical workaround of only seeking approval from the Committee Chair, rather than seeking full Committee, in advance for fees below an approved threshold of £100,000. This approval will then be ratified at the next meeting of the Committee.

The amended policy was fully disclosed in the 2017 Annual Report and remains unchanged. It is also available online on the Group's website.

During the year, PwC provided other services including certification of the Group's EITI submission in Senegal and providing the accountant's report on the circular requesting approval for the sell-down of the Group's holding in Vedanta Limited (the circular was prepared prior to the sale of shares enforced by the IITD). A full analysis of remuneration paid to the Group's external auditor in respect of both audit and non-audit work is provided in note 6.4 to the Financial Statements.

As an Audit Committee, we consider PwC to be independent.

#### Internal audit

Following a competitive tender process, Ernst & Young LLP ('EY') was appointed as the Group's internal auditor with effect from July 2013. Prior to the beginning of each year, an internal audit plan is developed by the internal auditor, in consultation with senior management, based on a review of the outcome of the previous year's internal audits, the outcome of the annual assessment of effectiveness of internal control (refer to page 77), the results of historical audits of fundamental business processes and the significant risks in the Group Risk Matrix and identified mitigation measures. The plan is then presented to the Audit Committee for review and approval. The internal auditor also participates in meetings of the Group Risk Management Committee to maintain an understanding of the business activities and associated risks and to update the Group Risk Management Committee on the internal audit work plan. The Audit Committee also receives updates on the internal audit work plan on an ongoing basis. The external auditor does not place any reliance on the work undertaken by the Group's internal audit function due to the nature of the scope and the timing of their work. The external auditor does, however, attend all Committee meetings where internal audit updates are given and meets separately with the internal auditor and the Audit Committee Chair to discuss areas of common focus in developing their audit plan.

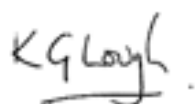
#### Working responsibly – whistleblowing and related policies

The Group is committed to working responsibly as part of its strategy to deliver value for all stakeholders. This means delivering value in a safe, secure, environmentally and socially responsible manner.

As part of this, the Audit Committee is responsible for ensuring the Group has a robust Whistleblowing Policy in place and this policy is reviewed annually by the Committee. The Group's current version of the policy was first presented to, and approved by, the Audit Committee at the March 2018 meeting and re-approved at the December 2018 Audit Committee meeting.

The Committee is also responsible for and is satisfied that arrangements are in place for the proportionate and independent investigation of possible improprieties in respect of financial reporting and other matters and for appropriate follow-up action.

The Group has in place a comprehensive Anti-Bribery-and-Corruption Management System and Code of Ethics. Regular training updates are provided to all employees and long term contractors in addition to the training that is provided to all new staff joining the company. As Cairn enters new countries, further monitoring is undertaken and training is refreshed. Further information regarding these policies can be found on the Group's website.



**Keith Lough**

Chair of the Audit Committee  
11 March 2019

## Nomination Committee Report

### The Nomination Committee Members and meetings in 2018

	Member since	Meetings attended
Ian Tyler (Chair)	05/14	
Simon Thomson	03/13	
Keith Lough	05/15	
Peter Kallos	09/15	
Iain McLaren <sup>1</sup>	03/13	

Note:  
1 Iain McLaren retired as a Non-Executive Director on 15 May 2018. The number of meetings he attended is stated up to that date.

#### Role and membership of the Committee

Cairn recognises that the role of its Nomination Committee, working together with the Board as a whole, is key to promoting effective Board succession and the alignment of Board composition with the Company's culture, values and strategy.

The membership of the Committee is set out in the table above and comprises a majority of independent Non-Executive Directors. The Chief Executive is also a member of the Committee.

- The role of the Nomination Committee includes:
- Evaluating the balance of skills, knowledge, experience, diversity and independence on the Board;
  - Leading the process for Board appointments and ensuring plans are in place for orderly succession to both Board and senior management positions;
  - Overseeing the development of a diverse pipeline for succession; and
  - Working with the Board to address any performance evaluation outcomes linked to Board composition and succession planning.

#### Board changes

As disclosed in last year's Annual Report, Iain McLaren retired as a Non-Executive Director immediately following the AGM on 15 May 2018. Following Iain's retirement from the Board, Keith Lough assumed the role of Chair of the Audit Committee and Peter Kallos assumed the role of Senior Independent Non-Executive Director. Jackie Sheppard also retired as a Non-Executive Director on 31 December 2018. In order to allow for a comprehensive handover of Jackie's responsibilities, Nicoletta Giadrossi assumed the role of Chair of the Remuneration Committee with effect from May 2018 (having been a member of the Committee since January 2017). Alexander Berger, having served on the Board for nine years, will also retire as a Non-Executive Director immediately following the AGM on 17 May 2019.

In view of the above changes to the Board, the Company commenced a search for two new Non-Executive Directors in 2018. The Company instructed recruitment consultants Spencer Stuart in connection with these appointments, including the preparation of both a long list and short list of candidates in respect of each position for consideration

by the Committee. Spencer Stuart has no other connection with the Company or any of its individual Directors. The recruitment process is well advanced and it is currently expected that the new Non-Executive Directors will be appointed to the Board during the first half of 2019. The Company will report further on the process for each of these appointments in next year's Annual Report.

#### Succession planning and development of executive pipeline

The Nomination Committee regularly evaluates the combination of skills, experience, independence and knowledge of the Company on the Board and makes recommendations to the Board as appropriate. In so doing, the Committee fully supports the principle that both appointments and succession plans should be based on merit and objective criteria, and within this context, should promote diversity of gender, social and ethnic backgrounds, cognitive and personal strengths.

The Board and Nomination Committee work together with the aim of maintaining a comprehensive succession plan for appointments to the Board and to senior management, so as to maintain an appropriate balance of skills and experience within the Company and on the Board and to ensure progressive refreshing of the Board. The Company's succession planning also includes contingency plans for the sudden or unexpected departure of Executive Directors and other senior managers.

The Board has also carefully considered the significance of succession planning and human resource management to the Company's strategy and annually reviews this at Board level. The key positions covered in our succession plan include the Executive Directors, regional directors and a number of other senior functional and technical managers. The Board considered succession planning for each of the key positions, analysed any succession gaps or risks identified and considered how best to continue to develop the succession pipeline of executive talent. As a result, the Board has a deep understanding of succession planning across the Company and the range of measures being used to continue to develop and recruit talented senior employees.

## Nomination Committee Report

### continued

#### Succession planning and development of executive pipeline continued

During 2018, the Board's review of succession planning covered a review of the process used by the Company for succession planning, key achievements since the previous review, analysis of the succession plan for each key position over various time horizons, an organisational capability assessment and 'health-check', and actions being undertaken to address any succession risks or challenges identified.

#### Diversity

The Nomination Committee very much recognises the benefits of building a diverse Board, not just in terms of gender and social and ethnic background, but also to promote diversity of cognitive and personal strengths. Following the retirement of Jackie Sheppard on 31 December 2018, the number of women on the Board reduced from two to one (representing 12.5% of total membership) and the current process to recruit new Non-Executive Directors is therefore actively seeking to appoint at least one woman. The Board remains diverse in terms of the range of culture, nationality and international experience of its members. The directors' diverse range of experience and expertise covers not only a wealth of experience of operating in the oil and gas industry but also extensive technical, operational, financial, governance, legal and commercial expertise. The Committee will continue to monitor and consider diversity for all future Board appointments, whilst also continuing to recruit on merit.

Beneath Board level, we are also thinking more broadly than gender diversity in all that we do and this means taking into account diversity in all its dimensions – national origin, age, race and ethnicity, religion/belief, gender, marital status and socioeconomic status, as well as other factors such as personality type, educational background, training, sector experience, and organisational tenure. Our Group People Policy supports this approach and one of the key principles of this is to promote, develop and maintain an inclusive workplace and to enhance the successful advancement of diversity in the workforce. In this context, our people are also actively encouraged to take responsibility for their own development, and to challenge conventional thinking and share knowledge, as well as recognising and creating opportunities for personal growth.

Whilst it is by no means the sole consideration, the Company does recognise the value of developing and increasing the number of women in senior management roles across the Group. We do however face particular challenges in achieving this, as it is generally recognised that more males study science, technology, engineering and mathematics (STEM) subjects, which in turn tends to mean more men than women applying to join oil and gas companies. Despite this, our gender statistics are very respectable compared to our industry peers, with 14% female representation on the Senior Leadership Team; 20% on the Management Team and (perhaps most encouraging from a succession planning perspective) 25% of all direct reports to the Senior Leadership Team. The Company has also participated fully in the annual submission of gender performance data to the UK Government as part of the Hampton-Alexander review aimed at improving the representation of women in leadership positions in the FTSE 350.

As a Company we will continue to promote diversity in its widest possible sense and the Board and Nomination Committee remain committed to ensuring that our policies and practices support this approach, with a view to harnessing the potential of our workforce and driving the success of the business.

#### Board and Committee performance evaluation

The Board retains overall responsibility for implementation of its annual performance evaluation and the process and outcomes of the 2018 externally conducted evaluation are described in the Corporate Governance Statement on pages 71 and 72. The process included a review of all Board committees and it was concluded that the relationship between the Board and its committees is functioning well, with all committees fully meeting their remit. The Nomination Committee works together with the Board in seeking to address any performance evaluation outcomes relating to Board composition and succession planning.



**Ian Tyler**

Chair of the Nomination Committee

11 March 2019



## Directors' Remuneration Report

### The Remuneration Committee Members and meetings in 2018

	Member since	Meetings attended
Nicoletta Giadrossi (Chair)	01/17	
Ian Tyler	06/13	
Peter Kallos	09/15	
Iain McLaren <sup>1</sup>	05/10	
Jackie Sheppard <sup>2</sup>	10/11	

- Notes:
- 1 Iain McLaren retired as a Non-Executive Director on 15 May 2018. The number of meetings he attended is stated up to that date.
- 2 Jackie Sheppard retired as a Non-Executive Director on 31 December 2018. The number of meetings she attended is stated up to that date.

### Part 1 – Annual statement from the Chair of the Committee

Dear Shareholder,

As the Chair of Cairn's Remuneration Committee, I am pleased to present our Directors' Remuneration Report for the year to 31 December 2018, a period during which we continued to apply the executive remuneration policy that was strongly supported at the 2017 AGM.

The Committee remains of the view that the above policy is still fit for purpose and it will, therefore, also be applied during 2019. As a result, shareholders are not being asked to approve a new Directors' Remuneration Policy at the 2019 AGM. However, for ease of reference, the substantive provisions of the approved policy are repeated in Part 2 of this report. Part 3, which contains this year's Annual Report on Remuneration, then goes on to explain how these provisions were actually applied in 2018 and how they will be operated in 2019. The Annual Report on Remuneration will be subject to an advisory vote at the AGM to be held on 17 May 2019.

#### New Chair of the Committee

On 15 May 2018, and after having served more than 12 months as a member, I became Chair of the Remuneration Committee. On appointment, I replaced M. Jacqueline Sheppard QC who had fulfilled the role of Chair since March 2012. I would like to express my thanks to Jackie for all her efforts with the Committee during her tenure and look forward to building on her work in the coming years.

#### Summary of 2018 business context and key remuneration decisions

The work of the Committee in 2018 was conducted against a backdrop of a year in which the Company made strong progress in building and diversifying its exploration portfolio; continued to maintain a strong balance sheet with sufficient cash flow from production to fund its attractive exploration programme; maintained funding flexibility; and made progress in relation to the action under the UK-India bilateral treaty arbitration.

## Directors' Remuneration Report

### continued

#### Summary of 2018 business context and key remuneration decisions continued

The key remuneration related decisions made by the Committee in 2018 are described in more detail in the Annual Report on Remuneration contained on pages 98 to 113 and can be summarised as follows:

<b>Base salary increases</b>	<p>At its meeting in November 2018, the Committee agreed that, with effect from 1 January 2019, a base salary increase of 2% would be applied to both of the Company's Executive Directors (being Simon Thomson and James Smith).</p> <p>The above increase was consistent with the level of standard annual salary increase awarded to other employees at that time.</p>
<b>2018 annual bonus</b>	<p>As highlighted in last year's Annual Report on Remuneration, the structure of the Executive Directors' bonus scheme for 2018 differed from the one that applied in 2017. Under this revised arrangement, which remained compliant with the remuneration policy approved at the 2017 AGM, the proportion of bonus determined by reference to Group KPIs was increased to 100%. (For the year to 31 December 2017, 90% of the individuals' bonuses were based on these KPIs, with the remaining 10% being dependent on the satisfaction of personal performance objectives).</p> <p>Based on an assessment of the extent to which the relevant targets were achieved during 2018, awards made under the annual bonus scheme to the Executive Directors during the year (as a percentage of annual salary) were 87.5% for both Simon Thomson and James Smith.</p> <p>Under the Company's approved remuneration policy, any part of an executive director's bonus that is in excess of 100% of the individual's base salary is deferred into Cairn shares for three years. Given that this threshold was not reached by the above bonuses, they were paid out wholly in cash.</p> <p>Further details of the way in which these awards were determined and paid are set out on pages 103 to 105 of the Annual Report on Remuneration.</p>
<b>Long Term Incentive Plan (LTIP) – vesting of 2015 awards</b>	<p>The performance period applicable to the LTIP awards granted in 2015 came to an end during 2018. Over this period, the Company's Total Shareholder Return was sufficient to place it between the fifth and sixth positions in a group of 18 comparator companies. This resulted in these awards vesting in respect of 56.65% of the shares over which they were granted.</p> <p>As part of the above vesting process, the LTIP's rules also required the Committee to review the Company's overall performance over the three years from the grant of the awards. After due and careful consideration, the Committee concluded that there had been a sustained improvement in such overall performance during that time.</p>
<b>LTIP – grant of 2018 awards</b>	<p>In March 2018, the Committee made the second annual grant under the Company's long term incentive plan that was adopted at the 2017 AGM (the 2017 LTIP). Details of the awards made to Executive Directors as part of this process are set out in the Annual Report on Remuneration.</p>
<b>Non-Executive Directors' fees and Chairman's fee</b>	<p>During 2018, the Committee considered the Chairman's annual fee in the context of market data and the time commitment for the role and decided that the fee for 2019 should be retained at the level paid in 2018.</p> <p>The fees paid to Non-Executive Directors were also reviewed by the Board (without Non-Executive Directors being present). Following this review, it was determined that the basic annual fee would be maintained at £75,000. Similarly, no change was made to the additional fee payable for chairing the Audit and/or Remuneration Committees.</p>

#### Applying the policy in 2019

An overview of the way in which the current remuneration policy will be applied in 2019 is set out on pages 112 to 113 in the Annual Report on Remuneration. In summary:

- on 1 January 2019, the above noted increases to the base salaries of the CEO and CFO came into effect;
- the Group KPI measures used for the annual bonus scheme (and their respective weightings) have been reformulated for 2019 in order to reflect appropriately the Company's strategic priorities for the period; and
- no material changes have been made to the manner in which the LTIP will operate in 2019.

**Introduction of the revised UK Corporate Governance Code and new disclosure requirements**


During the year, the Committee carefully considered the new remuneration related provisions that have been incorporated into the revised UK Corporate Governance Code published in July 2018 (the 'Revised Code'). Although these requirements only apply to the Company's financial years commencing on and after 1 January 2019, the Committee considers that a number of them are already satisfied by its existing policies and practices. Where this is not the case, the Committee has been actively taking steps to ensure that the Company will be compliant when the Revised Code takes effect. In particular:

<b>Broader Remuneration Committee responsibilities</b>	For a number of years, the Committee has been responsible for setting the remuneration of all the Company's PDMRs (including the Executive Directors). Similarly, it regularly reviews the pay policies and practices of the wider workforce (in order to ensure appropriate alignment with the approach taken to Executive Directors) and has an oversight role in the approval of the Group-wide bonus arrangements for all staff.
<b>Experience of the Committee Chair</b>	As demonstrated by my own recent experience, it is already our existing practice that any new Chair must have served for at least 12 months on a remuneration committee before appointment.
<b>Vesting periods for long term incentive arrangements</b>	As highlighted on page 107 of the Annual Report on Remuneration, the current structure of the 2017 LTIP is already compliant with the requirements of the Revised Code, in that any shares to which Executive Directors become entitled under that arrangement will not normally be released to them until the expiry of a period of five years from the original date of grant.
<b>Post-employment shareholding policy and alignment of pension provision across the Group</b>	As part of the process surrounding the formulation of the Company's next Directors' remuneration policy (which shareholders will be asked to approve at the 2020 AGM), the Committee will consider their approach to implementing a post-cessation of employment shareholding retention requirement. At the same time, the Committee will also investigate the possibility of aligning the pension provision for any future executive appointees to the Board with the levels that are available across the Group.

In addition to the above, the Committee has also considered the new disclosure requirements contained in both the Revised Code and the amended Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (the 'Amended Regulations'). Although these provisions will only be compulsory in relation to next year's Directors' Remuneration Report, the Committee has decided to include a number of the disclosures this year on a voluntary basis. For example, pages 102 and 103 set out information on the ratio between the Chief Executive's total remuneration for 2018 and the full-time equivalent remuneration of all the Company's UK employees across the Group as a whole. In addition, new information relating to the impact of share price appreciation on pay levels has been incorporated into the report.

**Feedback on Directors' Remuneration Report**

We welcome questions and feedback from all those interested on both the content and style of this report.

  
**Nicoletta Giadrossi**  
Chair of the Remuneration Committee  
11 March 2019



## Directors' Remuneration Report

### continued

## Part 2 – Directors' Remuneration Policy

### Introduction

At the AGM held on 19 May 2017, 97.96% of votes cast by shareholders were in favour of approving the Directors' Remuneration Policy for the Company that was put to that meeting. This policy specifies the various pay structures operated by the Company and summarises the approach that the Committee will adopt in certain circumstances such as the recruitment of new directors and/or the making of any payments for loss of office. It became effective immediately on receipt of that approval and was applied by the Committee during 2018. This policy will also be operative throughout 2019.

Although not required by the Amended Regulations, the substantive terms of the above Directors' Remuneration Policy are repeated in this Part 2 for ease of reference. However, any details that were specific to 2017 or earlier years (including, for example, any disclosures relating to named directors and the illustrative remuneration scenarios set out on page 96) have, where applicable, been updated to reflect the current position. The policy as originally approved by shareholders can be found on pages 101 to 110 of the 2016 Annual Report and Accounts, a copy of which is available on the Company website.

### Purpose and role of the Remuneration Committee

The Remuneration Committee determines and agrees with the Board the overall remuneration policy for the Executive Directors and the Group's PDMRs (Persons Discharging Managerial Responsibilities). Within the terms of this agreed policy, the Committee is also responsible for:

- determining the total individual remuneration package for each Executive Director and the PDMRs;
- determining the level of awards made under the Company's LTIPs and employee share award schemes and the performance conditions which are to apply;
- determining the KPIs used to measure performance for the annual bonus scheme;
- determining the bonuses payable under the Company's annual bonus scheme;
- determining the vesting levels of awards under the Company's LTIPs and employee share award schemes; and
- determining the policy for pension arrangements, service agreements and termination payments for Executive Directors and PDMRs.

The Committee also reviews and approves the overall remuneration levels of employees below senior management level, but does not set individual remuneration amounts for such individuals. This oversight role allows the Committee to take into account pay policies and employment conditions within the Group as a whole when designing the reward structures of the Executive Directors and PDMRs. For example, the Committee considers the standard increase applied to basic pay across the Group when setting Executive Directors' base salaries for the same period.

The Committee operates within written terms of reference agreed by the Board. These are reviewed periodically to ensure that the Committee remains up-to-date with best practices appropriate to Cairn, its strategy and the business and regulatory environment in which it operates. The terms of reference of the Remuneration Committee are available on the Company's website.

### Consultation with relevant stakeholders

The Committee is always keen to ensure that, in carrying out its mandate, it takes into account the views and opinions of all the relevant stakeholders in the business.

During 2018, former Chair of the Committee, Jackie Sheppard, and the new Chair of the Committee, Nicoletta Giadrossi, met with one of the Company's largest institutional investors in order to discuss their views on the Group's remuneration policies and practices.

Historically, the Committee has not undertaken a formal consultation exercise with employees in relation to the Group's policy on senior management remuneration. Members of staff are, however, regularly given the opportunity to raise issues on a variety of matters, including executive pay, via a number of mechanisms including 'town hall' meetings, the attendance of directors at team meetings and employee engagement surveys.

Overview of current remuneration policy

Cairn's current policy on Executive Directors' remuneration, which became effective on 19 May 2017 and which is set out below, is to ensure that it appropriately incentivises individuals to achieve the Group's strategy to deliver value for stakeholders by building and maintaining a balanced portfolio of exploration, development and production assets, whilst offering a competitive package against the market.

A description of each of the elements comprised in the pay packages for Cairn's Directors under its remuneration policy is as follows:

Policy Table – elements of directors' remuneration package

Remuneration element	Purpose and link to strategy	Operation	Opportunity	Framework for assessing performance
Base salary	Helps recruit and retain employees.  Reflects individual experience and role.	Normally reviewed annually (with changes taking effect on 1 January) and/or when otherwise appropriate, including when an individual changes position or responsibility.  Aim is to provide a competitive base salary relative to the market (although the committee does not place undue emphasis on benchmarking data and exercises its own judgement in determining pay levels).  Decision influenced by: <ul style="list-style-type: none"><li>– role and experience;</li><li>– average change in broader workforce salaries;</li><li>– individual performance; and</li><li>– remuneration practices in companies of a broadly similar size and value and relevant oil and gas exploration and production companies.</li></ul>	Whilst the committee has not set a monetary maximum, annual increases will not exceed the level of standard increase awarded to other employees except that more significant increases may be awarded at the discretion of the committee in connection with: <ul style="list-style-type: none"><li>– an increase in the scope and responsibility of the individual's role; or</li><li>– the individual's development and performance in the role following appointment; or</li><li>– a re-alignment with market rates.</li></ul>	None
Benefits	Helps recruit and retain employees.	Directors are entitled to a competitive package of benefits. For UK executives, the major elements include a company car, permanent health insurance, private health insurance, death-in-service benefit and a gym and fitness allowance.  The committee reserves the right to provide further benefits where this is appropriate in the individual's particular circumstances (for example costs associated with relocation as a result of the director's role with the Company). Executive directors are also eligible for other benefits which are introduced for the wider workforce on broadly similar terms.	Company cars up to a value of £70,000 (or, as an alternative, an annual car allowance of up to £8,771) may be provided. Whilst the committee has not set a monetary maximum for other benefits, they will be in line with the market as determined by the committee.	None

Directors' Remuneration Report  
continued

Remuneration element	Purpose and link to strategy	Operation	Opportunity	Framework for assessing performance
Annual bonus	Rewards the achievement of annual KPIs and/or other objectives linked to the Company's strategic goals.	<p>Bonuses are awarded by reference to performance against specific targets measured over a single financial year.</p> <p>Any amounts awarded to an individual under this arrangement up to 100% of salary are paid out in full shortly after the assessment of the performance targets has been completed. The remainder of the bonus will be deferred into an award of shares for a three year period, or such other period as determined by the committee.</p> <p>Annual bonuses may be subject to clawback, and the extent to which deferred share awards vest may be reduced, where, in the period of three years from the end of the relevant financial year, the committee becomes aware of a material misstatement of the Company's financial results or an error in the calculation of performance targets which, had it been known at the relevant time, would have reasonably been expected to have resulted in a lower award being made.</p>	Maximum % of salary: 125%.	<p>The measures and targets applicable to the annual bonus scheme (and the different weightings ascribed to each of them) are set annually by the committee in order to ensure they are relevant to participants and take account of the most up-to-date business plan and strategy.</p> <p>All, or a significant majority, of the bonus opportunity will normally be determined by reference to performance against demanding Group KPIs such as:</p> <ul style="list-style-type: none"><li>– exploration and new venture objectives;</li><li>– development and production targets; and</li><li>– HSE.</li></ul> <p>Any remaining part of a director's bonus will normally be based on the achievement of personal objectives relevant to that individual's role within the business.</p> <p>A payment scale (ranging from 0% to 100% of the opportunity) for different levels of achievement against each KPI and/or other objective is specified by the committee at the outset of each year.</p> <p>The committee has discretion to vary the measures and weightings during the year if events arise which mean that it would be inappropriate to continue with the originally prescribed structure. The committee expects that this discretion will only be exercised in exceptional circumstances and not to make the bonus scheme for that year less demanding than when it was originally set.</p> <p>In addition, the committee has discretion to ensure that the ultimate bonus payment for a financial year is fair and reasonable and properly reflects performance over that period.</p>



Remuneration element	Purpose and link to strategy	Operation	Opportunity	Framework for assessing performance
<b>2017 Long Term Incentive Plan (or 2017 LTIP)</b>	Incentivises Executive Directors to deliver long-term performance for the benefit of shareholders, thereby aligning the interests of the directors with those of the Company's investors.	<p>The 2017 LTIP was established by the Company following receipt of the necessary shareholder approvals at the 2017 AGM.</p> <p>Awards will normally be made annually with vesting dependent on achievement of performance conditions chosen by the committee that are measured over a period of at least three years.</p> <p>All awards which vest will normally be subject to a holding period in terms of which the relevant shares will only be released/become exercisable after a further period of at least two years has expired from the vesting date.</p> <p>The committee reviews the quantum of awards annually, taking into account factors such as market rates and overall remuneration.</p> <p>Awards may be subject to clawback where, in the period of three years from the end of the relevant performance period, the committee becomes aware of a material misstatement of the Company's financial results or an error in the calculation of performance conditions which, had it been known at the relevant time, would have reasonably been expected to have resulted in a lower vesting being determined.</p>	Normal total maximum % of salary: 250%.	<p>Vesting of awards granted under the 2017 LTIP will be determined by the growth in Total Shareholder Return (TSR) of Cairn over a performance period of at least three years.</p> <p>Awards up to 200% of salary (the 'core award') will be subject to TSR performance measured relative to a comparator group selected by the committee, with no more than 25% vesting at median and 100% for at least upper quartile performance.</p> <p>In order to focus on exploration success which leads to a material increase in the share price, once performance for the 'core award' has been fully achieved, an additional element of up to 50% of salary can be earned if absolute TSR growth over the same performance period equals or exceeds 100% (the 'kicker award').</p> <p>No part of any award will vest unless the committee is satisfied that there has been an overall satisfactory and sustained improvement in the performance of the Company as a whole over the performance period.</p> <p>Although the committee's intention is that the above conditions will be applied to LTIP awards granted in 2019, it may decide to impose different (but equally challenging) conditions in future years. The committee will consult with major shareholders prior to making any such decision and will ensure that the vesting of at least 50% of all awards granted under the LTIP continues to be determined by reference to the Company's TSR performance.</p>
<b>2009 Long Term Incentive Plan (or 2009 LTIP)</b>	Incentivises Executive Directors to deliver superior levels of long-term performance for the benefit of shareholders, thereby aligning the interests of the directors with those of the Company's investors.	<p>It is not proposed that further awards will be granted to Executive Directors under this plan.</p> <p>Awards vest dependent on achievement of performance conditions measured over a three-year period.</p> <p>On vesting of an award, 50% of the shares to which the holder has become entitled are released/become exercisable immediately, with the remaining 50% normally being released/becoming exercisable after a further period of one year.</p> <p>Awards may be subject to clawback where, in the period of three years from the end of the relevant performance period, the committee becomes aware of a material misstatement of the Company's financial results or an error in the calculation of performance conditions.</p>	Normal maximum % of salary: 300% (400% including multiplier).  Exceptional circumstances maximum % of salary: 400% (532% including multiplier).	<p>Vesting is determined by comparing the growth in Total Shareholder Return ('TSR') of Cairn over a performance period of three years from grant with the TSR of a comparator group of international oil and gas companies that is selected by the committee prior to each grant, with 20% vesting at median, 100% at upper decile and on a straight line sliding scale in between.</p> <p>In order to encourage exceptional performance, the above condition provides that, at upper decile levels, a multiplier of up to 1.33 is applied if absolute TSR growth is between 50% and 100% (or more). It also states that no part of any award will vest unless the committee is satisfied that there has been an overall satisfactory and sustained improvement in the performance of the Company as a whole over the performance period.</p>

## Directors' Remuneration Report

### continued

Remuneration element	Purpose and link to strategy	Operation	Opportunity	Framework for assessing performance
<b>Share Incentive Plan (or SIP)</b>	Encourages a broad range of employees to become long-term shareholders.	<p>The Company established an HM Revenue and Customs approved share incentive plan in April 2010. It allows the Company to provide eligible employees, including the Executive Directors, with some or all of the following benefits:</p> <ul style="list-style-type: none"> <li>– partnership shares acquired using deductions from salary;</li> <li>– matching shares awarded to those employees who purchase partnership shares on the basis of a ratio specified by the Company; and</li> <li>– free shares.</li> </ul> <p>Matching and free shares awarded under the SIP must normally be held in the plan for a specified period.</p>	<p>Participation limits are those set by the UK tax authorities from time to time. These limits are currently as follows:</p> <ul style="list-style-type: none"> <li>– Partnership shares: up to £1,800 per tax year can be deducted from salary.</li> <li>– Matching shares: up to two matching shares for every one partnership share purchased.</li> <li>– Free shares: up to £3,600 worth in each tax year.</li> </ul>	None
<b>Pension</b>	Rewards sustained contribution.	<p>The Company operates a defined contribution group personal pension plan in the UK. The scheme is non-contributory and all UK permanent employees, including the Executive Directors, are eligible to participate.</p> <p>The Company contributes a specified percentage of basic annual salary for senior employees, including Executive Directors.</p> <p>Where an Executive Director has an individual personal pension plan (or overseas equivalent), the Company pays its contribution to that arrangement.</p> <p>If an Executive Director's pension arrangements are fully funded or applicable statutory limits are reached, an amount equal to the Company's contribution (or the balance thereof) is paid in the form of additional salary.</p>	Company contributes 15% of basic salary on behalf of Executive Directors or pays them a cash equivalent.	None
<b>Non-Executive Directors' fees</b>	<p>Helps recruit and retain high-quality, experienced individuals.</p> <p>Reflects time commitment and role.</p>	<p>Non-Executive Directors' fees are considered annually and are set by the executive members of the Board and the Chairman taking into account a range of relevant factors including:</p> <ul style="list-style-type: none"> <li>– market practice;</li> <li>– time commitment; and</li> <li>– responsibilities associated with the roles.</li> </ul> <p>Additional fees are payable to the Chairs of the audit and remuneration committees.</p> <p>Expenses incurred in the performance of Non-Executive duties for the Company may be reimbursed or paid for directly by the Company, including any tax due on the expenses.</p>	Company's Articles of Association place a limit on the aggregate annual level of Non-Executive Directors' and Chairman's fees (currently £900,000).	None

Remuneration element	Purpose and link to strategy	Operation	Opportunity	Framework for assessing performance
Chairman's fees	Helps recruit and retain the relevant individual. Reflects time commitment.	The Chairman's fee is considered annually and is determined in light of market practice, the time commitment and responsibilities associated with the role and other relevant factors.  Expenses incurred in the performance of the Chairman's duties for the Company may be reimbursed or paid for directly by the Company, including any tax due on the expenses.	Company's Articles of Association place a limit on the aggregate annual level of Non-Executive Directors' and Chairman's fees (currently £900,000).	None

- Notes:
- 1 A description of how the Company intends to implement the policy set out in this table during the financial year to 31 December 2019 is provided on pages 112 and 113.
  - 2 The following differences exist between the Company's above policy for the remuneration of directors and its approach to the payment of employees generally:
    - Participation in the LTIP is typically aimed at the Executive Directors and certain selected senior managers. Other employees are eligible to participate in the Employee Share Award Scheme (details of which are provided on pages 157 to 159)
    - Under the Company's defined contribution pension scheme, the Company contribution for less senior employees is 10% of basic annual salary.
    - A lower level of maximum annual bonus opportunity applies to employees other than the Executive Directors and certain PDMRs.
    - Benefits offered to other employees generally comprise permanent health insurance, private health insurance, death-in-service benefit and gym and fitness allowance.In general, these differences arise from the development of remuneration arrangements that are market competitive for the various categories of individuals. They also reflect the fact that, in the case of the Executive Directors and PDMRs, a greater emphasis is placed on variable pay.
  - 3 The TSR performance conditions applicable to the 2017 LTIP and 2009 LTIP (further details of which are provided on page 106) were selected by the committee on the basis that they improve shareholder alignment and are consistent with the Company's objective of delivering superior levels of long-term value to shareholders. Under the terms of these performance conditions, the committee can specify the basis on which TSR for any company is calculated and has the discretion to make adjustments to this methodology to take account of exceptional circumstances, including share capital variations. Where any company becomes unsuitable as a member of the comparator group as a result of, for example, a change of control or delisting, the committee has the discretion to treat that company in such manner as it deems appropriate (including replacing it with another organisation).
  - 4 Where a nil-cost option award under the 2009 LTIP or 2017 LTIP becomes exercisable, it will generally remain so until the 10th anniversary of the date on which it was granted.
  - 5 The choice of the performance metrics applicable to the annual bonus scheme reflect the committee's belief that any incentive compensation should be tied to appropriately challenging measures of both the overall performance of the Company against its strategic KPIs and (where appropriate) those areas that the relevant individual can directly influence.
  - 6 The legislation applicable to the SIP does not allow performance conditions to be applied in relation to partnership or matching shares and, given that the SIP is an 'all-employee' arrangement, the Company has decided that it is currently not appropriate to apply performance conditions to free shares awarded under it, although the committee retains the discretion to apply performance conditions to future awards.

Common terms of share awards

- Awards under any of the Company's discretionary share plans referred to in this report may:
- be granted as conditional share awards or nil-cost options or in other such form that the Committee determines has the same economic effect;
  - have any performance conditions applicable to them amended or substituted by the Committee if an event occurs which causes the Committee to determine an amended or substituted performance condition would be more appropriate and not materially less difficult to satisfy;
  - incorporate the right to receive an amount (in cash or additional shares) equal to the value of dividends which would have been paid on the shares under the award that vest up to the time of vesting (or, where the award is subject to a holding period, release). This amount may be calculated assuming that the dividends have been reinvested in the Company's shares on a cumulative basis;
  - be settled in cash at the Committee's discretion; and
  - be adjusted in the event of any variation of the Company's share capital or any demerger, delisting, special dividend or other event that may affect the Company's share price.

Legacy awards

The Committee reserves the right to make any remuneration payments and/or payments for loss of office (including exercising any discretions available to it in connection with such payments) notwithstanding that they are not in line with the policy set out above where the terms of the payment were agreed (i) before 15 May 2014 (the date the Company's first shareholder-approved Directors' remuneration policy came into effect); (ii) before the policy set out above came into effect, provided that the terms of the payment were consistent with the shareholder-approved Directors' remuneration policy in force at the time they were agreed; or (iii) at a time when the relevant individual was not a director of the Company and, in the opinion of the Committee, the payment was not in consideration for the individual becoming a director of the Company. For these purposes 'payments' includes the Committee satisfying awards of variable remuneration and, in relation to an award over shares, the terms of the payment are 'agreed' at the time the award is granted.

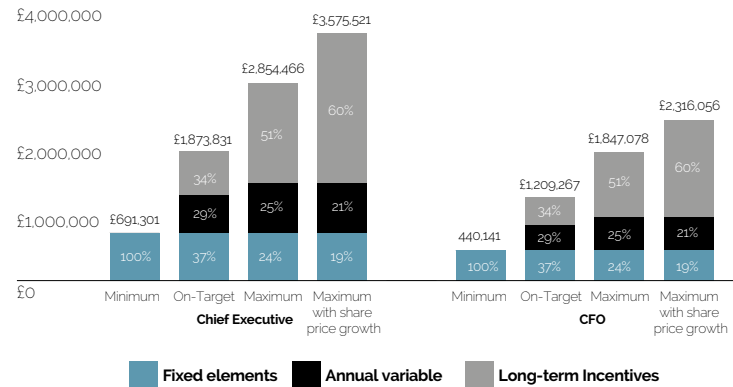


# Directors' Remuneration Report

continued

## Remuneration scenarios relating to the above policy

Cairn's pay policy seeks to ensure that the overall package of the Executive Directors is generally weighted more towards variable pay and, within such variable pay element, that greater emphasis is placed on the delivery of long-term performance through the award of long-term incentives. In the chart below, we show the make-up of remuneration of the current Executive Directors in 2019 under minimum, on-target and maximum scenarios. A further column has also been included which illustrates the impact on the figures contained in the maximum scenario of an assumed share price appreciation for the LTIP award of 50% over the relevant performance period.



In developing the above scenarios, the following assumptions have been made:

- The 'minimum' columns are intended to show the fixed level of remuneration to which the Executive Directors are entitled in 2019 irrespective of performance levels, namely base salary (at current rates), benefits (using the details set out in the 2018 single total figure table provided on page 100) and pension (calculated by applying the percentage entitlement set out in the policy table against latest confirmed salary).
- The 'on-target' scenario seeks to illustrate the remuneration the Executive Directors would receive if performance was in line with expectation. In addition to the fixed elements summarised above, it assumes a specified level of payout/vesting under the annual bonus scheme and 2017 LTIP. Given that neither of these incentive arrangements explicitly stipulate an 'on-target' amount, the assumed levels for this scenario are:
  - in the case of the LTIP, for on-target performance the 'kicker' element of the award would not vest. Therefore the illustration is based on 55% vesting of the 'core award' of 200% of salary. This vesting level is broadly equal to the percentage applied in determining the grant date 'fair value' of an LTIP award for the purposes of the Company's share-based payment charge; and
  - in the case of the annual bonus, a payout of 76% of maximum opportunity (being the approximate average of such payouts for all Executive Directors over the five years up to and including 2018).
- The 'maximum' columns demonstrate total remuneration levels in circumstances where the variable elements pay out in full, namely an annual bonus payment of 125% of salary (with 100% of salary paid in cash and the balance delivered in the form of a deferred share award) and 100% vesting of LTIP awards to be granted in 2019 over shares worth 250% of salary.
- For the 'maximum with share price growth' column, share price appreciation of 50% over the relevant performance period has been assumed for the LTIP awards. For all other columns, any post-grant share price movements have not been taken into account for the purposes of valuing LTIP and deferred bonus awards.
- The Executive Directors are entitled to participate in the SIP on the same basis as other employees. The value that may be received under this arrangement is subject to legislative limits and, for simplicity, has been excluded from the above chart.

## Recruitment policy

### Base salaries

Salaries for any new director hires (including internal promotions) will be set to reflect their skills and experience, the Company's intended pay positioning and the market rate for the role. Where it is appropriate to offer a below-market salary initially, the Committee will have the discretion to allow phased salary increases over time for newly appointed directors, even though this may involve increases in excess of the rate for the wider workforce and inflation.

### Benefits

Benefits and pensions for new appointees to the Board will normally be provided in line with those offered to other Executive Directors and employees taking account of local market practice, with relocation expenses/arrangements provided for if necessary. Tax equalisation may also be considered if an executive is adversely affected by taxation due to their employment with Cairn. Legal fees and other reasonable costs and expenses incurred by the individual may also be paid by the Company.

### Variable pay

For external appointments, the Committee will ensure that their variable remuneration arrangements are framed in accordance with the terms of, and are subject to the limits contained in, the Company's existing policy.

The Committee may however, in connection with an external recruitment, offer additional cash and/or share-based elements intended to compensate the individual for the forfeiture of any awards under variable remuneration schemes with a former employer. The design of these payments would appropriately reflect the value, nature, time horizons and performance requirements attaching to the remuneration foregone. Shareholders will be informed of any such arrangements at the time of appointment.

Where an individual is appointed to the Board, different performance measures may be set for the year of joining the Board for the annual bonus, taking into account the individual's role and responsibilities and the point in the year the executive joined.

For an internal appointment, any variable pay element awarded in respect of the prior role may be allowed to pay out according to its terms, adjusted as relevant to take into account the appointment.

Chairman and Non-Executive Directors

On the appointment of a new Chairman or Non-Executive Director, the fees will be set taking into account a range of relevant factors including market practice, time commitment and the responsibilities associated with the role. Where specific cash or share arrangements are delivered to Non-Executive Directors, these will not include share options or other performance-related elements.

Executive Directors' service contracts

The current Executive Directors' service contracts contain the key terms shown in the table below:

Provision	Detailed terms
Remuneration	<ul style="list-style-type: none"><li>– Salary, pension and benefits.</li><li>– Company car or cash allowance.</li><li>– Permanent health insurance.</li><li>– Private health insurance for Director and dependants.</li><li>– Death-in-service benefits.</li><li>– 30 days' paid annual leave.</li><li>– Participation in annual bonus plan, subject to plan rules.</li><li>– Participation in deferred bonus, LTIP and SIP, subject to plan rules.</li></ul>
Notice period <sup>1</sup>	<ul style="list-style-type: none"><li>– 12 months' notice by the Director or by the Company.</li></ul>
Termination payment	<ul style="list-style-type: none"><li>– See separate disclosure below.</li></ul>
Restrictive covenants	<ul style="list-style-type: none"><li>– During employment and for 12 months after leaving.</li></ul>

Note:  
1 The Committee believes that this policy on notice periods provides an appropriate balance between the need to retain the services of key individuals who will benefit the business and the need to limit the potential liabilities of the Company in the event of termination.

The Executive Directors' service contracts are available for inspection, on request, at the Company's registered office.

Exit payment policy for Executive Directors

Executive Directors' contracts allow for termination with contractual notice from the Company or termination with a payment in lieu of notice, at the Company's discretion. The contracts also allow for phased payments to be made on termination with an obligation on the individual to mitigate loss. Neither notice nor a payment in lieu of notice will be given in the event of gross misconduct. The Committee's approach when considering payments in the event of termination is to take account of the individual circumstances including the reason for termination and the contractual obligations of both parties as well as the relevant share plan and pension scheme rules.

In the event of termination by the Company, an Executive Director would be entitled to receive an amount representing base salary and the value of benefits and pension contributions due under the individual's service contract for the notice period. Directors are not entitled to participate in any additional redundancy scheme. The Committee will have the authority to settle legal claims against the Group (e.g. for unfair dismissal, discrimination or whistle-blowing) that arise on termination. The Committee may also authorise the provision of outplacement services and pay reasonable legal expenses associated with the termination.

On termination of employment, the Committee has discretion as to the amount of bonus payable in respect of the current year. The bonus paid would reflect the Company's and the individual's performance during that period. However, any bonus payable (in cash and/or share awards as determined by the Committee) on termination would not exceed a pro-rated amount to reflect the period for which the individual had worked in the relevant year.

As a general rule, if an Executive Director ceases employment, all unvested share awards granted pursuant to the Company's deferred bonus arrangements will lapse immediately. However, if such cessation occurs by reason of death, injury, permanent disability, or because the individual's employing company or part of the business in which he/she is employed is transferred out of the Group, retirement with the agreement of the Company, or in any other circumstances determined by the Committee other than where an individual has been summarily dismissed (in each case, a 'good leaver'), those awards will not lapse and will normally continue to vest at the end of the original vesting period. The Committee may determine that a deferred bonus award should vest before the normal time in certain circumstances, for example where an individual has died. The Committee also has the discretion to time pro-rate any awards held by such a good leaver.

As a general rule, if an Executive Director ceases employment, all unvested awards granted pursuant to the Company's long-term incentive arrangements under the 2009 LTIP and 2017 LTIP will lapse immediately. However, if such cessation occurs by reason of death, injury, permanent disability (or, for 2009 LTIP awards, redundancy), or because the individual's employing company or part of the business in which he/she is employed is transferred out of the Group, or in any other exceptional circumstances determined by the Committee (in each case, a 'good leaver'), those awards will not lapse and will normally continue to vest at the end of the original performance period but only if, and to the extent that, the applicable performance conditions are satisfied. The Committee may determine that an award should vest before the normal time in certain circumstances, for example where an individual has died. It is the Remuneration Committee's normal policy to time pro-rate any awards held by such a good leaver, although it retains the discretion to refrain from doing so in exceptional circumstances. Any holding period attached to the share awards would normally continue to apply.

If an Executive Director ceases employment, 2017 LTIP awards subject to a holding period will normally be released (or if structured as nil-cost options, become exercisable) on the original timescales. These awards will, however, lapse where cessation occurs due to the individual's gross misconduct, or if the Committee considers it appropriate, the individual's bankruptcy. The Committee has the discretion to accelerate the release of shares in certain circumstances, for example death. For 2009 LTIP awards subject to a holding period at the time an Executive Director ceases employment, awards will normally be released on cessation of employment.

## Directors' Remuneration Report

### continued

#### Exit payment policy for Executive Directors continued

On a change of control of the Company resulting in the termination of his employment, the current Chief Executive is entitled to compensation of a sum equal to his annual basic salary as at the date of termination of employment. As noted and explained in previous reports, the Committee recognises that this provision is no longer in accordance with best practice. It was not included in the contract of the CFO that was entered into on his appointment in 2014, and will not be included in the contracts of other future appointees to the Board; however, it continues to apply to the current Chief Executive.

In the event of a change of control or winding up of the Company, treatment of share awards will be in accordance with the relevant plan rules. The Committee has the discretion to disapply time pro-rating in the event of a change of control.

If there is a demerger or special dividend, the Committee may allow awards to vest on the same basis as for a change of control.

#### Non-Executive Directors' letters of appointment

None of the Non-Executive Directors nor the Chairman has a service contract but all have letters of appointment that set out their duties and responsibilities, the time commitment expected by the Company, and the basis on which their fees will be paid. These letters of appointment can be terminated with immediate effect by either the director concerned or the Company and are subject to the Company's Articles of Association, which provide for the annual election or re-election by shareholders of all of the Company's Directors. There are no provisions for compensation payable on termination of appointment.

None of the Non-Executive Directors nor the Chairman participates in any of the Company's share schemes and they are not entitled to a bonus or pension contributions.

The Non-Executive Directors' letters of appointment are available for inspection, on request, at the Company's registered office.

## Part 3 – Annual Report on Remuneration

### Introduction

This Annual Report on Remuneration provides details of the way in which the Committee operated during the financial year to 31 December 2018 and explains how Cairn's approved Directors' Remuneration Policy that is described on pages 90 to 98 was implemented during that period. It also summarises how that policy will be applied in 2019.

In accordance with the Amended Regulations, this part of the report will be subject to an advisory vote at the AGM to be held on 17 May 2019.

The Company's auditor is required to report to Cairn's shareholders on the 'auditable parts' of this Annual Report on Remuneration (which have been highlighted as such below) and to state whether, in their opinion, those parts have been properly prepared in accordance with the Amended Regulations and the Companies Act 2006.

### Operation of the Remuneration Committee during 2018

#### Members of the Remuneration Committee

The members of the Remuneration Committee during the year were as follows:

- Nicoletta Giadrossi (Chair of the Committee from 15 May 2018);
- M. Jacqueline Sheppard QC (Chair of the Committee until 15 May 2018);
- Iain McLaren (retired as a Non-Executive Director and member of the Committee on 15 May 2018);
- Ian Tyler; and
- Peter Kallos.

The individuals who served on the Committee, each of whom is (or was prior to retirement) an independent Non-Executive Director of the Company, had no personal financial interest (other than as shareholders) in the matters decided, no potential conflicts of interest from cross-directorships and no day-to-day involvement in running the business. Biographical information on the individuals that were Committee members as at 31 December 2018 is shown on pages 66 and 67 and details of attendance at the Committee's meetings during 2018 are shown on page 75.

#### Internal assistance provided to the Committee

The Chief Executive is not a member of the Remuneration Committee but may attend its meetings by invitation and is consulted in respect of certain of its proposals. The Chief Executive is not involved in any discussions in respect of his own remuneration. During the year, the Committee also received material assistance and advice on remuneration policy from the Company Secretary.



External assistance provided to the Committee

As and when the Remuneration Committee considers it appropriate, it takes external advice on remuneration from a number of sources. During the year, it received the following assistance:

Adviser	Assistance provided to the Committee during 2018	Fees for Committee assistance in 2018 <sup>1</sup>	Other services provided to the Company during 2018
Aon <sup>2,3</sup>	Appointed by the Committee to give periodic advice on various aspects of the Directors' remuneration packages. Also assisted with the preparation of the Directors' Remuneration Report and provided support on a number of miscellaneous remuneration related projects.	£21,717	Provided advice on various aspects of remuneration practice across the Group.
Ernst & Young LLP	Appointed by the Company to carry out an independent verification of its achievement against performance conditions applicable to the Company's LTIPs and share option schemes.	N/A – no advice provided to the Committee	Internal auditor of the Company throughout the year.
Shepherd and Wedderburn LLP	Appointed by the Company to carry out regular calculations in relation to the LTIP performance conditions. Also assisted with the preparation of the Directors' Remuneration Report.	£25,234	General legal services to the Group throughout the year.

- Notes:
- 1 The bases for charging the fees set out in the table were agreed by the Committee at or around the time the particular services were provided and, in general, reflected the time spent by the adviser in question on the relevant matter.
  - 2 Aon Hewitt Limited, part of Aon plc.
  - 3 Aon is a member of the Remuneration Consultants Group and their work is governed by the Code of Conduct in relation to executive remuneration consulting in the UK.
  - 4 The Committee reviews the performance and independence of all its advisers on a continuous basis. No issues relating to performance or independence were noted by the Committee during the year.

Statement of shareholder voting at general meetings

The table below shows the voting outcome at the last general meeting(s) at which shareholders were asked by the Company to approve a resolution relating to its Directors' Remuneration Report and Directors' Remuneration Policy:

Description of resolution	Date of general meeting	Number of votes 'For' and 'Discretionary'	% of votes cast	Number of votes 'Against'	% of votes cast	Total number of votes cast	Number of votes 'Withheld' <sup>1</sup>
To approve the 2017 Directors' Remuneration Report	15/05/18	476,850,997	98.36%	7,973,545	1.64%	484,824,542	1,668,660
To approve Directors' Remuneration Policy	19/05/17	465,933,235	97.96%	9,688,508	2.04%	475,621,743	7,035,403

- Note:
- 1 A vote withheld is not a vote in law.

The Committee welcomed the endorsement of both the above resolutions that was shown by the vast majority of shareholders at the relevant meetings and gave due consideration to any concerns raised by investors who did not support the resolutions.

Directors' Remuneration Report continued

Payments to past directors during 2018 (audited)

During the year to 31 December 2018, there were no payments to past directors of the kind which require to be disclosed in terms of the Amended Regulations.

Single total figure table for 2018 (audited)

The tables below set out the remuneration received by Executive Directors and Non-Executive Directors during the year in the following categories.



Executive Directors

		Fixed elements of pay					
Financial year		Salary and fees	Benefits <sup>1</sup>	Pension <sup>2</sup>	SIP <sup>3</sup>	Fixed element subtotal	
Directors							
Simon Thomson	2018	£565,533	£27,930	£84,830	£7,197	£685,490	
	2017	£559,934	£32,305	£83,990	£7,199	£683,428	
James Smith	2018	£367,826	£8,681	£55,174	£7,197	£438,878	
	2017	£364,185	£21,417	£54,628	£7,199	£447,429	
		Pay for performance					
		Annual bonus <sup>4</sup> ...			Performance element subtotal	Total remuneration	
Financial year		...paid in cash	...deferred into shares	...total bonus			
Directors							
Simon Thomson	2018	£494,841	£0	£494,841	£1,023,670	£1,518,511	£2,204,001
	2017	£538,880	£0	£538,880	£1,770,307	£2,309,187	£2,992,615
James Smith	2018	£321,848	£0	£321,848	£665,800	£987,648	£1,426,526
	2017	£350,492	£0	£350,492	£1,151,419	£1,501,911	£1,949,340

Notes:

1 Taxable benefits available to the Executive Directors during 2018 were a company car/car allowance, private health insurance, death-in-service benefit and a gym and fitness allowance. This overall package of taxable benefits was largely unchanged from 2017, with the lower figures for both the Executive Directors in 2018 primarily being attributable to reduced charges for their company cars.

2 Additional disclosures relating to the pension provision for the Executive Directors during 2018 are set out on page 103.

3 This column shows the face value (at date of award) of matching and free shares provided to the Executive Directors under the SIP during the relevant period. Further details on the way in which the SIP was operated during 2018 are set out on pages 109 and 110.

4 Under the Company's annual bonus scheme for 2017 and 2018, any sums awarded in excess of 100% of salary are delivered in the form of deferred share awards, which normally vest after a period of three years from grant. Further information in relation to the annual bonus scheme for 2018 is provided on pages 103 to 105. For the avoidance of doubt, the quantum of awards made under this arrangement is not attributable, either wholly or in part, to share price appreciation.

5 This column shows the value of shares that vested in respect of LTIP awards with performance conditions that ended during the period in question. Further details of the LTIP's operation during 2018, including confirmation of the amount of the above vesting value that was attributable to share price appreciation, are provided on pages 106 to 109.

6 Following the end of the year to 31 December 2018, the Committee considered whether there were any circumstances that could or should result in the recovery or withholding of any sums pursuant to the clawback arrangements contained within the Company's remuneration policy. The conclusion reached by the Committee was that it was not aware of any such circumstances.

Non-Executive Directors

	Financial year	Fixed elements of pay				Pay for performance			Total remuneration
		Salary and fees <sup>1</sup>	Benefits	Pension <sup>2</sup>	Fixed element subtotal	Bonus <sup>2</sup>	Long-term incentives <sup>2</sup>	Performance element subtotal	
Directors									
Ian Tyler	2018	£177,000	–	–	£177,000	–	–	–	£177,000
	2017	£175,000	–	–	£175,000	–	–	–	£175,000
Todd Hunt	2018	£75,500	–	–	£75,500	–	–	–	£75,500
	2017	£74,900	–	–	£74,900	–	–	–	£74,900
Iain McLaren <sup>3 4</sup>	2018	£31,788	–	–	£31,788	–	–	–	£31,788
	2017	£84,900	–	–	£84,900	–	–	–	£84,900
Alexander Berger	2018	£75,500	–	–	£75,500	–	–	–	£75,500
	2017	£74,900	–	–	£74,900	–	–	–	£74,900
M. Jacqueline Sheppard QC <sup>3</sup>	2018	£79,218	–	–	£79,218	–	–	–	£79,218
	2017	£84,900	–	–	£84,900	–	–	–	£84,900
Keith Lough <sup>3</sup>	2018	£81,782	–	–	£81,782	–	–	–	£81,782
	2017	£74,900	–	–	£74,900	–	–	–	£74,900
Peter Kallos	2018	£75,500	–	–	£75,500	–	–	–	£75,500
	2017	£74,900	–	–	£74,900	–	–	–	£74,900
Nicoletta Giadrossi <sup>3 5</sup>	2018	£81,782	–	–	£81,782	–	–	–	£81,782
	2017	£73,268	–	–	£73,268	–	–	–	£73,268

Notes:

1 As disclosed in the 2017 Annual Report on Remuneration, the Chairman’s fee for 2018 was increased from £175,000 to £177,000 and the basic annual Non-Executive Director fee for 2018 was increased from £74,900 to £75,500. Both these changes took effect from 1 January 2018.

2 The Non-Executive Directors do not participate in any of the Company’s long-term incentive arrangements and are not entitled to a bonus or pension contributions.

3 An additional fee of £10,000 is payable to the Chair of each of the Audit Committee and the Remuneration Committee. In the case of the Audit Committee, both Iain McLaren and Keith Lough served as Chair during 2018 and their share of this additional fee reflects their respective periods in this post. A similar approach was adopted in respect of M. Jacqueline Sheppard QC and Nicoletta Giadrossi, both of whom fulfilled the role of Chair of the Remuneration Committee for a proportion of the year.

4 Iain McLaren retired as a Director on 15 May 2018. His fees for 2018 reflect the period from the start of the year to that date.

5 Nicoletta Giadrossi was appointed as a Non-Executive Director on 10 January 2017. Her fees for 2017 reflect the period from that date to the year end.

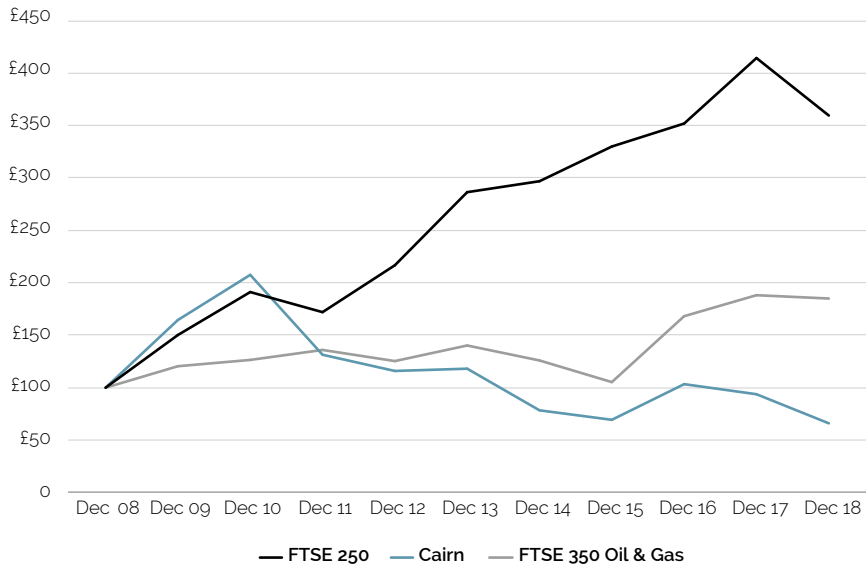
TSR performance graph and further information on Chief Executive pay

Introduction

The following chart demonstrates the growth in value of a £100 investment in the Company and an investment of the same amount in both the FTSE 250 Index and the FTSE 350 Oil & Gas Producers Index over the last 10 years. These comparisons have been chosen on the basis that: Cairn was a constituent member of the FTSE 250 Index for the whole of 2018; and the FTSE 350 Oil & Gas Producers Index comprises companies who are exposed to broadly similar risks and opportunities as Cairn.

The table following the graph illustrates the movements in the total remuneration of the Company’s Chief Executive during the same 10-year period.

Performance graph – comparison of 10-year cumulative TSR on an investment of £100





## Directors' Remuneration Report

### continued

#### TSR performance graph and further information on Chief Executive pay continued

##### Total remuneration of Chief Executive during the same 10-year period

Financial year	Chief Executive	Total remuneration of Chief Executive <sup>1</sup>	Annual variable element award rates for Chief Executive (as % of max. opportunity)	Long term incentive vesting rates for Chief Executive (as % of original award level)
<b>2018</b>	<b>Simon Thomson</b>	<b>£2,204,001</b>	<b>70%</b>	<b>56.7%</b>
2017	Simon Thomson	£2,992,615	76.9%	90.8%
2016	Simon Thomson	£2,081,601	80.2%	81.7%
2015	Simon Thomson	£1,292,167	75%	23.4%
2014	Simon Thomson	£1,073,425	78.5%	0%
2013	Simon Thomson	£962,765	63%	0%
2012	Simon Thomson	£1,018,570	86%	0%
2011	Simon Thomson	£3,405,719	82%	121%
2011 <sup>2</sup>	Sir Bill Gammell	£4,053,822	N/A	106%
2010	Sir Bill Gammell	£7,302,533	58%	113%
2009	Sir Bill Gammell	£962,757	54%	0%

#### Notes:

- The amounts disclosed in this column have been calculated using the same methodology prescribed by the Amended Regulations for the purposes of preparing the single total figure table shown on page 100.
- Sir Bill Gammell stood down as Chief Executive on 30 June 2011 and was replaced by Simon Thomson (who had previously been Legal and Commercial Director) with effect from that date. Sir Bill Gammell's 'total remuneration' for 2011 shown in the above table reflects the amount of salary, benefits and pension paid to him in respect of the period to 30 June 2011. However, during the year to 31 December 2011, Sir Bill Gammell also received, in connection with the termination of his employment and in settlement of his contractual entitlements, a payment of salary and benefits in lieu of his contractual notice period of one year (£770,000) and a cash bonus under the Company's annual bonus scheme (£625,000).

#### Percentage annual change in Chief Executive's remuneration elements compared to all Group employees

The table below illustrates, for various elements of the Chief Executive's 2018 remuneration package, the percentage change from 2017 and compares it to the average percentage change for all the Group's employees in respect of that same period.

	% change in base salary	% change in taxable benefits	% change in annual bonus
Chief Executive	1%	(13.54%) <sup>1</sup>	(8.17%)
All Group employees	164% <sup>2</sup>	(3.03%)	(3.41%)

#### Notes:

- As highlighted on page 100, the above decrease in the Chief Executive's taxable benefits is largely attributable to reduced charges for his company car.
- The standard level of salary increase across the Group in 2018 was 1%. However, a small number of individuals received higher percentage increases which raised the average for all employees to 164%.

#### Pay ratio information in relation to Chief Executive's remuneration

The Amended Regulations contain a requirement (which applies to financial years commencing on or after 1 January 2019) to disclose the ratio of the Chief Executive's pay, using the amount set out in the single total figure table, to that of the median, 25<sup>th</sup> and 75<sup>th</sup> percentile total remuneration of full-time equivalent UK employees.

Although the above requirement has yet to come into force and, when it does, will only apply to companies with more than 250 UK employees during the relevant period, the Committee felt that it would be appropriate to include the relevant disclosures this year on an entirely voluntary basis as it helps to demonstrate the link between the Chief Executive's pay and the remuneration of the wider workforce.

For the year to 31 December 2018, the relevant ratios were as follows:

Year	Method of calculation adopted	25 <sup>th</sup> percentile pay ratio (Chief Executive : UK employees)	Median pay ratio (Chief Executive : UK employees)	75 <sup>th</sup> percentile pay ratio (Chief Executive : UK employees)
2018	Option A	36 : 1	22 : 1	11 : 1

#### Note:

- The median, 25<sup>th</sup> percentile and 75<sup>th</sup> percentile figures used to determine the above ratios were calculated by reference to the full-time equivalent annualised remuneration (comprising salary, benefits, pension, SIP, annual bonus and long term incentives) of all UK based employees of the Group as at 31 December 2018 (i.e. 'Option A'). The Committee selected this calculation methodology as it was felt to produce the most statistically accurate result.

The Committee considers that the median pay ratio disclosed above is consistent with the pay, reward and progression policies for the Company's UK employees taken as a whole. It reflects the fact that only the most senior employees in the Group participate in the Company's LTIP arrangement (which attracts a greater level of annual award when compared to the share-based incentive schemes offered to other members of staff). It also reflects the fact that a greater proportion of Executive Director pay is linked to annual performance through a higher annual bonus opportunity (a percentage of which is subject to deferral into shares). In addition, in-line with market practice, pension contributions available to the current executive team are higher than for the wider workforce.

In future years, the Committee will monitor movements in the disclosed ratios and provide appropriate commentary around annual changes and longer term trends.

Pay details for the individuals whose 2018 remuneration is at the median, 25<sup>th</sup> percentile and 75<sup>th</sup> percentile amongst UK based employees are as follows:

Year	Chief Executive	25 <sup>th</sup> percentile	Median	75 <sup>th</sup> percentile
Salary	£565,533	£34,340	£57,802	£115,000
Total pay and benefits	£2,204,001	£61,186	£98,902	£192,757

**Executive Directors' base salaries during 2018**

Based on a review carried out in November 2017, the following salary increases for Executive Directors became effective on 1 January 2018:

**2018 Annual salary details**

Job title		Annual salary as at 31 December 2017	Annual salary as at 1 January 2018	% increase with effect from 1 January 2018
<b>Current Directors</b>				
Simon Thomson	CEO	£559,934	£565,533	1%
James Smith	CFO	£364,185	£367,826	1%

The increases shown in the above table for both Simon Thomson and James Smith were consistent with the level of standard annual salary increase awarded to other employees on 1 January 2018.

**Executive Directors' pension provision during 2018 (audited)**

As highlighted in the Directors' Remuneration Policy described on pages 90 to 98, the Company operates a defined contribution, non-contributory Group personal pension plan which is open to all UK permanent employees. The Company contributes 10% of basic annual salary (15% in respect of senior executives) on behalf of all qualifying employees. The Company also has a pension committee which meets on a regular basis to assess the performance and suitability of the Company's pension arrangements.

James Smith is a member of the Company scheme and, during the year, received Company contributions up to his statutory annual allowance. The balance of his 15% of basic salary entitlement was paid as additional salary.

During the year, Simon Thomson received an amount equal to 15% of his annual basic salary in the form of additional salary as his pension arrangements have already reached the relevant lifetime limit.

Details of the actual amounts of pension contributions/additional salary that were paid to the Executive Directors during 2018 are set out in the 'pension' column of the single total figure table on page 100.

**Annual bonus – 2018 structure and outcome (audited)**

During 2018, Cairn operated an annual bonus scheme for all employees and Executive Directors. The maximum level of bonus award for Executive Directors and certain PDMRs for the year was 125% of annual salary.

For all participants other than the Executive Directors, 2018 bonus awards were based on achievement against a mixture of personal objectives, project-based KPIs and Group-wide KPIs. When determining the level of award attributable to the personal performance element of these individuals' bonuses, consideration was also given to the extent to which they demonstrated the Company's 'high performance behaviours' during the period and also the level of their understanding, application and compliance with the Company's various standards and policies. The final level of all bonuses awarded to employees below Executive Director/PDMR level was reviewed and approved by the Committee.

As highlighted in last year's Annual Report on Remuneration, 100% of each Executive Director's bonus opportunity for 2018 was determined by reference to the extent to which certain Group KPIs were achieved. Taking into account commercial sensitivities around disclosure, a summary of the relevant targets, ascribed weightings and achievement levels is set out below.

## Directors' Remuneration Report

### continued

#### 2018 annual bonus scheme – Group KPI performance conditions (100% weighting) and achievement levels

KPI measures and performance achieved in 2018				Weighting (as % of allocated proportion of maximum opportunity)	Bonus awarded	KPI Remuneration Committee decision
Purpose	2018 KPI	Measurement	2018 performance			
<b>Maintain licence to operate</b>						
Deliver value in a safe, secure and environmentally and socially responsible manner.	<ul style="list-style-type: none"> <li>– Demonstrate clear progress and achieve defined milestones in relation to HSSE/ Corporate responsibility (CR) objectives, split into four key categories: Society and Communities; People; the Environment; and Business Relationships.</li> <li>– Achieve lagging HSSE indicators set in line with IOGP targets and guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>– Achievements of leading indicators linked to the four key categories listed.</li> <li>– Lagging indicators set in line with IOGP targets and guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>– Good progress made against leading indicators, including: <ul style="list-style-type: none"> <li>– Inductions on the Code of Ethics completed by all new staff;</li> <li>– Anti-bribery and corruption assessment completed for all new assets;</li> <li>– Inclusion of Modern Slavery Act conditions in all relevant contracts and issue of the first Cairn Modern Slavery Act statement;</li> <li>– Outperformed our training plan for Crisis and Emergency Response Team training in preparedness for the UK operated well; and</li> <li>– Health and well-being, talent management and management development programmes all successfully developed and launched.</li> </ul> </li> </ul>	15%	135%	Substantially achieved
<b>Portfolio management</b>						
Portfolio optimisation and replenishment.	<ul style="list-style-type: none"> <li>– Secure two or more new exploration opportunities that enhance our portfolio, meet corporate hurdles and offer exploration drilling in the near to medium-term.</li> </ul>	<ul style="list-style-type: none"> <li>– Each new exploration opportunity secured will be measured against tests of (i) control; (ii) commercial robustness based on success case Pmean economics; and (iii) materiality based on documented NPV10 thresholds.</li> </ul>	<ul style="list-style-type: none"> <li>– Awarded five licences in the UK 30<sup>th</sup> Offshore Exploration Licence Round, operating two of the awards.</li> <li>– Completed one farm-in in the UK with the option to operate.</li> <li>– Secured one block in the Mexico Licence Round 3.1, as operator.</li> <li>– Secured one block offshore Suriname, as operator.</li> </ul>	10%	10%	Fully achieved
<b>Deliver exploration success</b>						
Grow the reserves and resources base to provide a basis for future growth.	<ul style="list-style-type: none"> <li>– Mature prospects to drill ready status</li> <li>– Secure funds and JV support for drilling</li> <li>– Execute exploration drilling, to deliver potentially commercial volumes to add to our Group Reserves and Resources (2P and 2C).</li> </ul>	<ul style="list-style-type: none"> <li>– Mature six or more prospects with all internal reviews completed.</li> <li>– Drill four or more exploration wells before year end 2018.</li> <li>– Efficiently discover commercial quantities of hydrocarbons in line with pre-drill estimates at an attractive Group finding efficiency rate including estimated subsequent appraisal requirements.</li> </ul>	<ul style="list-style-type: none"> <li>– Prospects successfully matured, assured and recommended during 2018 for drilling in 2018 or 2019 including two prospects in Block 9, Mexico; one prospect in Block 7, Mexico; the Agar-Plantain prospect in the UK (drilled 2018); the Chimera prospect in the UK; and the Godalen prospect in Norway.</li> <li>– Wells on Ekland and Agar-Plantain, each in the UK, were drilled in 2018 with an oil discovery made on Agar-Plantain. 2C volumes discovered were lower than pre-drill estimates.</li> </ul>	25%	115%	Partially achieved
<b>Mature developments</b>						
Progress Senegal and Nova development projects.	<ul style="list-style-type: none"> <li>– Mature the Senegal SNE development and funding plans for presentation to the Government of Senegal.</li> <li>– Mature the Nova development project in Norway to Final Investment Decision.</li> </ul>	<ul style="list-style-type: none"> <li>– Timely submission of the SNE Area Evaluation Report, Exploitation Plan and associated Environmental and Social Impact Assessment.</li> <li>– Approval of the SNE Exploitation Plan and associated Exploitation Area by the end of the PSC term and finalisation and approval of joint venture financing plan.</li> <li>– Submission of the Nova Plan of Development to Norwegian authorities in H1 2018 and all internal approvals in place to complete a Final Investment Decision and approve the operator entering into acceptable contractual commitments on behalf of the joint venture during 2018.</li> </ul>	<ul style="list-style-type: none"> <li>– The SNE Area Evaluation Report was submitted to the Ministry of Energy in July 2018.</li> <li>– The SNE Field Development Phase 1 ESIA was submitted to the authorities in June 2018 and approved in January 2019.</li> <li>– The SNE Exploitation Plan was submitted to the authorities in October 2018 and is technically approved, subject to finalisation of FEED. The joint venture financing plan is underway and expected to be concluded during 2019.</li> <li>– The Final Investment Decision was taken on the Nova development in H1 2018 and the Plan of Development submitted to the Norwegian authorities also in H1 2018.</li> </ul>	17%	13%	Substantially achieved

KPI measures and performance achieved in 2018				Weighting (as % of allocated proportion of maximum opportunity)	Bonus awarded	KPI Remuneration Committee decision
Purpose	2018 KPI	Measurement	2018 performance			
<b>Deliver operational excellence</b>						
Maximise revenues through efficient operations.	<ul style="list-style-type: none"> <li>Deliver target production volumes, operating costs and crude values from Kraken and Catcher at pre-determined levels.</li> </ul>	<ul style="list-style-type: none"> <li>Measured against target net oil production volumes, operating costs per bbl targets, average crude realisation relative to Brent targets and 1P/2P targets.</li> </ul>	<ul style="list-style-type: none"> <li>Catcher – Target net oil production volumes were exceeded, at better than target operating costs and realised at a price within the expected target. Reserves at Catcher have been marginally upgraded.</li> <li>Kraken – 2018 KPI target production volumes and operating costs were not met in 2018 but the price realised for the crude was better than target. Reserves at Kraken have been downgraded.</li> </ul>	15%	8.5%	Partially achieved
<b>Deliver a sustainable business</b>						
Manage balance sheet strength.	<ul style="list-style-type: none"> <li>Develop and implement a funding strategy that ensures that an executable funding plan is developed and that a minimum headroom cushion from existing sources of funding is maintained.</li> <li>Success in the action under the UK-India bilateral treaty arbitration.</li> </ul>	<ul style="list-style-type: none"> <li>Funding strategy implementation measured against four funding strategy criteria being met throughout the year.</li> <li>Measured against positive progress achieved in the UK-India bilateral treaty arbitration and a successful award.</li> </ul>	<ul style="list-style-type: none"> <li>Funding headroom was maintained throughout the year covering the Group's committed forward capital expenditure.</li> <li>Debt covenants were maintained with surplus in each quarter.</li> <li>Liquidity was increased during the year to add material new exploration commitments in Mexico, Suriname and UK/Norway.</li> <li>All arbitration hearings have taken place. Whilst the award has not yet been made, recognition had been given for the progress made in the process and for the significant strategic planning that had been carried out for the result.</li> </ul>	18%	13.5%	Substantially achieved
<b>Totals</b>				<b>100%</b>	<b>70%</b>	

Read more: [Strategy and Key Performance Indicators on P6](#)

2018 annual bonus scheme – overview of awards and actual payments made

The application of the outturn from the above performance condition assessments resulted in the following bonuses becoming payable to Simon Thomson and James Smith:

		Simon Thomson Group KPI measures	James Smith Group KPI measures
<b>Award elements</b>	Weighting (as % of max. bonus opportunity)	100%	100%
	x		
	Achievement level	70%	70%
	=		
	Award percentage (as % of max. bonus opportunity)	70%	70%
<b>Award calculation</b>	Max. bonus opportunity (as % of salary)	125%	125%
	x		
	Award percentage (as calculated above)	70%	70%
	=		
	Total award (as % of salary)	87.5%	87.5%
	Total award (as an amount)	£494,841	£321,848
<b>Form of payment</b>	Cash payment <sup>1</sup>	£494,841	£321,848
	Deferred share award <sup>2</sup>	£0	£0

Note:

1 Cash payments due under the annual bonus scheme were paid to the relevant individuals shortly after completion of the assessment of the relevant performance measures and conditions.

2 Under the Company's annual bonus scheme for 2018, any amounts awarded in excess of 100% of salary would have been delivered in the form of share awards granted under the Company's Deferred Bonus Plan.

The Remuneration Committee considered that the above final award levels were appropriately reflective of overall performance during the year.



Directors' Remuneration Report  
continued

Long-term incentives during 2018

Introduction

During the year to 31 December 2018, the Executive Directors participated in the Company's 2009 LTIP (which was originally approved by shareholders at the AGM held on 19 May 2009) and its 2017 LTIP (which was approved by shareholders at the AGM held on 19 May 2017).

Both the 2009 LTIP and 2017 LTIP enable selected senior individuals to be granted conditional awards or nil-cost options over ordinary shares, the vesting of which is normally dependent on both continued employment with the Group and the extent to which pre-determined performance conditions are met over a specified period of three years. Following the introduction of the 2017 LTIP during the year to 31 December 2017, no further awards have been, or will be, granted under the 2009 LTIP, although existing entitlements under the earlier arrangement continue to subsist on their original terms.

Overview of performance conditions – 2009 LTIP

In the case of all awards under the 2009 LTIP (including those granted during 2015 and 2016), the performance conditions involve a comparison of the TSR of the Company over a three-year performance period (commencing on the date of grant of the relevant award) with the TSR of a share in each company in a comparator group (details of which are set out on page 109). At the end of this period, each company in the comparator group is listed in order of TSR performance to produce a 'ranking table'. The vesting of awards then takes place as follows:

Ranking of Company against the comparator group	Percentage of ordinary shares comprised in award that vest
Below median	0%
Median	20%
Upper decile (i.e. top 10%)	100%
Between median and upper decile	20%–100% on a straight-line basis

In order to ensure that the 2009 LTIP encourages and rewards exceptional performance in terms of delivering increased growth and shareholder value, the performance conditions attaching to awards also provide that, where the TSR of the Company produces a ranking at or above the upper decile level in the appropriate comparator group, a participant will then be given the opportunity to increase the percentage of his/her award that vests through the application of a 'multiplier' that is linked to the TSR actually achieved over the performance period. The way in which this multiplier operates is as follows:

Multiplier applied to determine the number of ordinary shares that actually vest	TSR of the Company over the performance period
1	50% or less
1.33	100% or more
1–1.33 on a straight-line basis	Between 50% and 100%

However, notwithstanding the performance of the Company against the above targets, no part of an award granted under the 2009 LTIP will vest unless the Remuneration committee is satisfied that there has been an overall satisfactory and sustained improvement in the performance of the Company as a whole over the performance period.

Overview of performance conditions – 2017 LTIP

For the awards granted to Executive Directors under the 2017 LTIP during 2017 and 2018, the performance conditions are comprised of two distinct elements, namely:

Conditions applicable to the 'core award'

The first condition applies to that element of each award which is over ordinary shares worth 200% of the individual's salary (the 'core award') and involves an assessment of the Company's TSR performance over a three-year performance period (commencing on the date of grant) relative to the performance achieved by a pre-determined comparator group of companies in the same sector (details of which are set out on page 109). Vesting will then take place as follows:

Ranking of Company against the comparator group	Percentage of ordinary shares comprised in core award that vest
Below median	0%
Median	25%
Upper quartile or above	100%
Between median and upper quartile	25%–100% on a straight-line basis

Conditions applicable to the 'kicker award'

The second condition applies to the remaining part of each grant (the 'kicker award'), being an element that is granted over ordinary shares worth 50% of salary. This part of the award will vest in full if, over the same three-year measurement period (i) the Company achieves an upper quartile ranking (or above) in the comparator group; and (ii) the TSR actually achieved by the Company is at least 100%. For the avoidance of doubt, if either of these requirements is not satisfied, no part of the kicker award will vest.

As with the 2009 LTIP, no part of an award granted under the 2017 LTIP will vest unless the Remuneration Committee is satisfied that there has been an overall satisfactory and sustained improvement in the performance of the Company as a whole over the performance period.

Summary of vesting terms, holding periods and clawback arrangements – 2009 and 2017 LTIPs

On any vesting of an award under the 2009 LTIP, 50% of the ordinary shares to which the holder has become entitled are released or become exercisable immediately, with the remaining 50% normally being released or becoming exercisable after a further holding period of one year.

In the case of the grants made under the 2017 LTIP to Executive Directors, all awards will normally be subject to a holding period of two years following vesting, at the end of which the ordinary shares to which the holder has become entitled will be released or become exercisable. For the avoidance of doubt, this additional holding period will apply to both the kicker and core elements (see above) of these awards.

As noted in the Directors' Remuneration Policy, awards granted under the 2009 and 2017 LTIPs are subject to clawback provisions which may be operated by the Committee where, in the period of three years from the end of the applicable performance period, it becomes aware of either a material misstatement of the Company's financial results or an error in the calculation of performance metrics which, had it been known at the relevant time, would have reasonably been expected to have resulted in such lower vesting being determined.

LTIP awards granted during 2018 (audited)

On 28 March 2018, the following awards under the 2017 LTIP were granted to Executive Directors:

						Face value (£'000) of ...		
Type of award	Basis of award granted <sup>3</sup>	Share price at date of grant <sup>4</sup>	No. of shares over which award originally granted	% of shares over which award originally granted that vest at threshold <sup>5</sup>	...shares over which award originally granted <sup>6</sup>	...max. no. of shares to vest if all performance measures met <sup>6</sup>	Vesting determined by performance over	
<b>Directors</b>								
Simon Thomson	Nil-cost option	2.5 x base salary of £565,533	£2.11	670,062	20%	£1,414	£1,414	
James Smith	Nil-cost option	2.5 x base salary of £367,826	£2.11	435,812	20%	£920	£920	
							3 years until 27 March 2021	

- Notes:
- 1 Details of the performance conditions applicable to the awards granted in 2018 are provided on page 106.
  - 2 No price is payable by participants for their shares on the exercise of a nil-cost option granted under the LTIP.
  - 3 As explained on page 106, the above awards are separated into (i) a 'core' element (over ordinary shares worth 2 x base salary); and (ii) a 'kicker' element (over shares worth 0.5 x base salary).
  - 4 This figure represents the closing mid-market price of a share in the Company for the dealing day immediately preceding the date of grant. (The actual closing price on 28 March 2018 was £2.074.)
  - 5 As explained on page 106, a 25% threshold vesting percentage applies to the 'core' element of these awards. This represents 20% of the total award (i.e. 'core' plus 'kicker' elements) that was granted over shares worth 2.5 x base salary.
  - 6 The values shown in these columns have been calculated by multiplying the 'number of shares over which the award was originally granted' by the 'share price at date of grant'.

LTIP – awards vesting during the year (audited)

On 18 March 2018, the three-year performance period applicable to the awards granted under the 2009 LTIP on 19 March 2015 to various participants (including the Executive Directors) came to an end. Thereafter, the Remuneration Committee assessed the relevant performance conditions. The results of this assessment, which was completed on 26 March 2018, can be summarised as follows:

Performance measure	% of award subject to measure	Performance achieved 2015-2018	% of award vested
Relative TSR performance against a comparator group of 18 companies with the opportunity for additional multiplier of up to 1.33 to be applied for upper decile/ absolute TSR performance.	100%	Cairn's TSR over the period placed it between the fifth and sixth ranked companies in the comparator group. After careful consideration of a variety of factors, the Committee also concluded that there had been a sustained improvement in the overall performance of the Company over the three years in question.	56.65%

- Notes:
- 1 Further details of the performance conditions that applied to the above awards are set out on page 106.
  - 2 At various points in the period 19 March 2015 to 18 March 2018, the Committee was required to determine (in accordance with the approved remuneration policy in place at that time) the treatment of those comparator group companies that were the subject of takeover transactions. No other discretions were exercised by the Remuneration Committee during or after the relevant performance period.
  - 3 The TSR calculations used to inform the Committee's determinations in relation to the above awards were independently verified by Ernst & Young LLP.

Directors' Remuneration Report continued

Long-term incentives during 2018 continued

The following table shows, for each Executive Director, details of the 2009 LTIP awards that vested during the year:

					% of award to vest as per performance condition assessment	No. of shares that vested <sup>1</sup>	Value of shares vesting <sup>2</sup>	Amount of vesting value attributable to share price appreciation <sup>3</sup>
Type of award	Date of grant	No. of shares over which award originally granted	Date of vesting					
<b>Current director</b>								
Simon Thomson	Nil-cost option	19/03/15	877,190	26/03/18	56.65%	496,927	£1,023,670	£95,409
James Smith	Nil-cost option	19/03/15	570,529	26/03/18	56.65%	323,204	£665,800	£62,055

- Notes:
- 1 On the vesting of a 2009 LTIP award held by a current employee or Executive Director of the Group, 50% of the shares to which the holder has become entitled are available for immediate exercise, with the remaining 50% normally becoming exercisable after a further period of one year.
  - 2 The values shown in this column (which are included in the single total figure table for 2018) have been calculated by multiplying the number of shares that vested by £2.06, being the closing mid-market price of a share in the Company on the day such vesting occurred.
  - 3 The values shown in this column have been calculated by (i) multiplying the grant date face value of the relevant award (as disclosed in previous Directors' Remuneration Reports) by the above noted vesting percentage; and (ii) deducting that amount from the applicable 'value of shares vesting' figure.

LTIP – awards exercised during 2018 (audited)

Details of vested LTIP awards (which are in the form of nil-cost options) that were exercised by the Executive Directors during the year to 31 December 2018 are as follows:

	Date of grant	Plan	Date of vesting	Date of exercise	Number of ordinary shares acquired on exercise	Exercise price	Market value of ordinary shares at date of exercise	Gain on exercise
Current Director								
Simon Thomson	19/03/14	2009 LTIP	06/04/17	27/03/18	435,822	Nil	£2.1015	£915,880
	19/03/15	2009 LTIP	26/03/18	27/03/18	248,463	Nil	£2.1015	£522,145
James Smith	19/03/14	2009 LTIP	06/04/17	27/03/18	283,461	Nil	£2.1015	£595,693
	19/03/15	2009 LTIP	26/03/18	27/03/18	161,602	Nil	£2.1015	£339,607

LTIP – other awards held by Executive Directors during the year

For the sake of completeness, and in order to allow comparisons to be made with the awards granted under the LTIPs during 2018, set out below are details of the other unvested entitlements under the plans that were held by the Executive Directors during the year:

Directors	Date of grant	Plan	Type of award	Basis of award granted	Share price at date of grant <sup>2</sup>	No. of shares over which award originally granted	% of shares over which award originally granted that vest at threshold <sup>3</sup>	Face value (£'000) of...		Vesting determined by performance over three years until...
								...shares over which award originally granted <sup>4</sup>	...max. no. of shares to vest if all performance measures met <sup>5</sup>	
Simon Thomson	16/03/16	2009 LTIP	Nil-cost option	3 x base salary of £554,390	£1,9407	856,994	20%	£1,663	£2,212	15/03/19
	23/05/17	2017 LTIP	Nil-cost option	2.5 x base salary of £559,934	£2,18	642,125	20%	£1,400	£1,400	22/05/20
James Smith	16/03/16	2009 LTIP	Nil-cost option	3 x base salary of £360,579	£1,9407	557,395	20%	£1,082	£1,439	15/03/19
	23/05/17	2017 LTIP	Nil-cost option	2.5 x base salary of £364,185	£2,18	417,642	20%	£910	£910	22/05/20

- Notes:
- 1 Further details of the performance conditions that apply to these awards are set out on page 106.
  - 2 In the case of an award granted in 2016, this figure represents the average of the closing mid-market prices of a share in the Company over the three days immediately preceding the date of grant. For a 2017 award, it is the closing mid-market price of such a share for the single dealing day immediately preceding the date of grant.
  - 3 In the case of an award granted in 2017, a 25% threshold vesting percentage applies to the 'core' element of these awards (being the element granted over ordinary shares worth 2 x base salary). This represents 20% of the total award (i.e. 'core' plus 'kicker' elements) that was granted over shares worth 2.5 x base salary.
  - 4 The values shown in this column have been calculated by multiplying the relevant 'number of shares over which the award was originally granted' by the appropriate 'share price at date of grant'.
  - 5 In the case of an award granted in 2016, the values shown in this column have been calculated by multiplying the relevant 'number of shares over which the award was originally granted' by 133% (being the vesting percentage that would apply on full satisfaction of all performance conditions to which the awards are subject – see page 106) and multiplying the result by the appropriate 'share price at date of grant'.

Comparator group companies applicable to LTIP awards

The table below provides details of the comparator groups applicable to each tranche of awards granted under the 2009 and 2017 LTIPs to Executive Directors that were outstanding during 2018.

Company	Comparator group applicable to LTIP awards granted on...			
	19/03/15	16/03/16	23/05/17	28/03/18
Africa Oil Corp.		✓	✓	✓
Afren PLC*	✓			
Aker BP ASA (formerly named Det Norske Oljeselskap ASA)	✓	✓	✓	✓
BG Group PLC*	✓			
Cobalt International Energy, Inc. *		✓		
DNO ASA	✓	✓	✓	✓
Dragon Oil PLC*	✓			
EnQuest PLC	✓	✓	✓	✓
Faroe Petroleum PLC	✓	✓	✓	✓
Genel Energy PLC	✓	✓	✓	✓
Kosmos Energy Limited	✓	✓	✓	✓
Lundin Petroleum AB	✓	✓	✓	✓
Maurel & Prom		✓		
Nostrum Oil & Gas PLC	✓	✓	✓	✓
Ophir Energy PLC	✓	✓	✓	✓
Petroceltic International PLC*	✓	✓		
Premier Oil PLC	✓	✓	✓	✓
Rockhopper Exploration PLC	✓	✓	✓	✓
Santos Limited	✓	✓	✓	✓
Seplat Petroleum Development Company PLC			✓	✓
SOCO International PLC	✓	✓	✓	✓
Sound Energy PLC			✓	✓
Tullow Oil PLC	✓	✓	✓	✓

\* Denotes companies that have delisted during the applicable performance period. For awards granted under the 2017 LTIP, the Committee's normal policy is to remove from the relevant comparator group any company that has delisted less than half way through the applicable performance period. For delistings that occur after that time, the relevant company is retained and moved in line with the remaining members of the group. For the 2009 LTIP, all delisted companies are retained in the group, regardless of when such delisting occurs.

Participation of Executive Directors in all-employee share schemes during 2018  
Introduction

In order to encourage increased levels of long-term share ownership amongst its general employee population, the Company launched an HM Revenue and Customs approved SIP in April 2010. The SIP provides eligible employees, including the Executive Directors, with the following benefits:

- **'Partnership shares'** – employees can authorise deductions of up to £1,800 per tax year from pre-tax salary, which are then used to acquire ordinary shares on their behalf.
- **'Matching shares'** – the Company can award further free shares to all participants who acquire partnership shares on the basis of up to two matching shares for every one partnership share purchased. For the tax year 2018/2019, the Company awarded two matching shares for every one partnership share purchased and intends to continue using this award ratio for the tax year 2019/2020.
- **'Free shares'** – employees can be given up to £3,600 worth of ordinary shares free in each tax year. On 6 April 2018, an award of free shares was made to employees, including to the Executive Directors.

As the SIP is an 'all-employee' arrangement, no performance conditions are imposed in relation to any matching or free shares awarded pursuant to its terms.



Directors' Remuneration Report continued

Participation of Executive Directors in all-employee share schemes during 2018 continued

Details of Executive Directors' SIP participation in 2018

Details of the shares purchased by and awarded to the Executive Directors under the SIP during the course of the year are as follows:

	Total SIP shares held at 01/01/18	Free shares awarded on 06/04/18 at a price of £2.162 per share	Partnership shares awarded on 04/05/18 at a price of £2.315 per share	Matching shares awarded on 04/05/17 at a price of £2.315 per share	Total SIP shares held at 31/12/18
<b>Directors</b>					
Simon Thomson	24,976	1,665	777	1,554	28,972
James Smith	16,681	1,665	777	1,554	20,677

The total number of shares held by each of the current Executive Directors under the SIP is included in their beneficial shareholdings disclosed in the Directors' Report on page 114.

Shareholding guidelines for Directors (audited)

The Committee believes that a significant level of shareholding by the Executive Directors strengthens the alignment of their interests with those of shareholders. Accordingly, a formal share ownership policy is in place under which the Executive Directors are required to build up and maintain a target holding equal to a specified percentage of base salary. During the year ended 31 December 2017, this target holding was increased from 100% of salary to its current level of 200% of salary.

In order to facilitate the achievement of the above requirement, the share ownership policy also provides that, until the necessary holding is achieved, an Executive Director is obliged to retain shares with a value equal to 50% of the net-of-tax gain arising from any vesting or exercise under the Company's share incentive plans.

The following table discloses the beneficial interest of each Director in the ordinary shares of the Company as at 31 December 2018 (or date of cessation of directorship, if earlier). It also highlights the fact that, on 1 January 2019, the above shareholding requirements were satisfied by both Simon Thomson, CEO, and James Smith, CFO.

	Shares held				Awards over shares under the LTIP		
	Ordinary shares <sup>2</sup>	Ordinary shares held in the SIP <sup>3</sup>	Total holding of ordinary shares	Value of holding as a % of salary on 1 January 2019 <sup>4</sup>	Ordinary shares subject to vested but unexercised awards <sup>5</sup>	Ordinary shares subject to unvested awards <sup>6</sup>	Total interest in ordinary shares
<b>Executive Directors</b>							
Simon Thomson	1,182,425	28,972	1,211,397	449%	248,464	2,169,181	3,629,042
James Smith	440,527	20,677	461,204	263%	161,602	1,410,849	2,033,655
<b>Non-Executive Directors</b>							
Ian Tyler	-	-	-	-	-	-	-
Todd Hunt	72,012	-	72,012	-	-	-	72,012
Alexander Berger	40,008	-	40,008	-	-	-	40,008
M. Jacqueline Sheppard QC	7,000	-	7,000	-	-	-	7,000
Keith Lough	-	-	-	-	-	-	-
Peter Kallos	10,982	-	10,982	-	-	-	10,982
Nicoletta Giadrossi	-	-	-	-	-	-	-
<b>Former Director</b>							
Iain McLaren	32,878	-	32,878	-	-	-	32,878
	<b>1,785,832</b>	<b>49,649</b>	<b>1,835,481</b>	<b>-</b>	<b>410,066</b>	<b>3,580,030</b>	<b>5,825,577</b>

Notes:

1 Details of the Company's share ownership policy for Executive Directors are set out above.

2 Includes shares held by connected persons.

3 Under the rules of the SIP, certain shares awarded to participants must be retained in the plan for a specified 'holding period' of up to five years. The receipt of these shares is not subject to the satisfaction of performance conditions.

4 Share price used is the average share price over the year to 31 December 2018.

5 This column shows all vested but unexercised awards under the LTIP that were held by the Director concerned as at 31 December 2018.

6 This column shows all unvested and outstanding awards under the LTIP that were held by the Director concerned as at 31 December 2018 (i.e. including those granted during the year). Details of these entitlements, the vesting of which is subject to the satisfaction of performance conditions, are set out on page 107.

**Dilution of share capital pursuant to share plans during 2018**

In any 10-year rolling period, the number of ordinary shares which may be issued in connection with the Company's 'discretionary share plans' (which includes both the LTIPs and the share option/award schemes used to incentivise less senior employees) cannot exceed 5% of the Company's issued ordinary share capital.

In addition, in any 10-year rolling period, the number of ordinary shares which may be issued in connection with all of the Company's employee share schemes (whether discretionary or otherwise) cannot exceed 10% of the Company's issued ordinary share capital.

It should also be noted that all shares acquired by or awarded to participants under the SIP and the Deferred Bonus Plan are existing ordinary shares purchased in the market. As a result, neither the SIP nor the Deferred Bonus Plan involves the issue of new shares or the transfer of treasury shares.

**Board appointments with other companies during 2018**

The Board believes, in principle, in the benefits of Executive Directors accepting positions as Non-Executive Directors of other companies in order to widen their skills and knowledge for the benefit of the Company, provided that the time commitments involved are not unduly onerous. The Executive Directors are permitted to retain any fees paid for such appointments.

The appointment of any Executive Director to a non-executive position with another company must be approved by the Nomination Committee. In the case of a proposed appointment to a company within the oil and gas industry, permission will only normally be given if the two companies do not compete in the same geographical area.

Details of the non-executive positions with other companies that were held by Cairn's Executive Directors during 2018, and the fees that were payable, are as follows:

	Position held	Fees received for the year to 31 December 2018
<b>Current Directors</b>		
Simon Thomson	Non-executive director, Graham's The Family Dairy Limited	£35,000
	Non-executive director, Edinburgh Art Festival	£0

**Relative importance of spend on pay**

Set out below are details of the amounts of, and percentage change in, remuneration paid to or receivable by all Group employees and distributions to shareholders in the years ended 31 December 2017 and 2018.

	Financial Year 2017	Financial Year 2018	% change
Employee costs (US\$m)	34.2	38.1	11.4% <sup>1</sup>
Distributions (US\$m) <sup>2</sup>	0	0	0%

Note:  
1 This rise in employee costs is largely attributable to the headcount increase that occurred within the business during 2018.  
2 For the purposes of the above table, "Distributions" include amounts distributed to shareholders by way of dividend and share buyback.

Directors' Remuneration Report  
continued

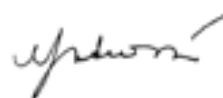
Implementation of remuneration policy in 2019

The following table provides details of how the Company intends to implement the key elements of the current Directors' Remuneration Policy described in pages 90 to 98 during the year to 31 December 2019.

Remuneration element	Implementation during 2019
Base salary	<p>Both of the Executive Directors received a 2% increase in base salary on 1 January 2019 – this was in line with the standard annual increase awarded to other employees on that date. After applying this increase, details of the base salaries payable to both the current Executive Directors for the year to 31 December 2019 are as follows:</p> <ul style="list-style-type: none"><li>– Simon Thomson, CEO – £576,844; and</li><li>– James Smith, CFO – £375,183.</li></ul>
Benefits	<p>Executive Directors will continue to receive the same benefits as in 2018.</p>
Annual bonus – 2019	<p>In accordance with the requirements of the policy, Executive Directors will be eligible to receive a bonus of up to 125% of base salary depending on the extent to which specified measures are satisfied over 2019. However, any bonus awarded to an Executive Director in excess of 100% of salary will be deferred into Cairn shares for a period of three years.</p> <p>The whole of the Chief Executive's and CFO's 2019 bonus opportunity will be based on the Group KPIs described below (with details of the weightings specified in brackets):</p> <ul style="list-style-type: none"><li>– <b>HSSE/CR</b> (15%):<ul style="list-style-type: none"><li>• Demonstrate clear progress and achieve defined milestones in relation to HSSE/CR objectives, split into four key categories (Governance, People, Society and the Environment).</li><li>• Achieve lagging HSSE indicators set in line with IOGP targets.</li></ul></li><li>– <b>Production</b> (10%):<ul style="list-style-type: none"><li>• Ensure production and operating cash flow from Kraken and Catcher are at or within guidance on net production volume and lifting cost per barrel.</li></ul></li><li>– <b>Funding</b> (24%):<ul style="list-style-type: none"><li>• Implement funding strategy to support exploration, appraisal and development activity and to mitigate any downside revenue scenarios.</li><li>• Progress the UK-India bilateral treaty arbitration to conclusion and receipt of awarded sums in event of success.</li></ul></li><li>– <b>New Ventures</b> (8%):<ul style="list-style-type: none"><li>• Secure two new venture opportunities that meet corporate hurdles and have risk levels consistent with our Risk Appetite Statement. Measured against tests of control, materiality and commercial robustness.</li></ul></li><li>– <b>Exploration</b> (25%):<ul style="list-style-type: none"><li>• Successfully drill and evaluate a programme of six exploration wells across our portfolio.</li><li>• Discover potentially commercial hydrocarbons in line with pre-drill expectations.</li><li>• Mature up to six new independent exploration prospects with JV support for drilling in the period 2020-2021.</li></ul></li><li>– <b>Developments</b> (18%):<ul style="list-style-type: none"><li>• Mature the SNE field development project in Senegal to Final Investment Decision.</li><li>• Progress the Nova development project against key predefined project milestones.</li></ul></li></ul> <p>The overall categories and weightings for these KPIs were agreed by the Board, with the specific targets to be used for the purposes of the 2019 bonus scheme being set by the Remuneration Committee (which will also be responsible for their assessment at the end of the year). These targets are commercially sensitive and have not, therefore, been set out in detail above. However, appropriate disclosure of Group KPIs and Group performance in relation to the 2019 bonus scheme will be included in next year's Annual Report on Remuneration.</p>

Remuneration element	Implementation during 2019
<b>LTIP</b>	<p>It is intended that, during 2019, the Executive Directors will be granted awards pursuant to the rules of the 2017 LTIP. These awards will, in aggregate, be over shares worth 250% of salary and will take the following forms:</p> <ul style="list-style-type: none"><li>- a 'core award' over shares worth 200% of salary – the vesting of which will be dependent on relative TSR performance over a three-year period versus a comparator group of peer companies (with 25% vesting for a median ranking rising on a straight-line basis to 100% vesting for upper quartile performance); and</li><li>- a 'kicker award' over shares worth 50% of salary – vesting will be conditional on achieving both an upper quartile ranking in the comparator group and absolute TSR growth over the performance period of at least 100%.</li></ul> <p>All shares that vest in relation to an award (whether 'core' or 'kicker') will be subject to an additional two-year holding period.</p> <p>The comparator group against which the relative performance conditions are assessed will be the same as the one used for the purposes of the LTIP grants made in 2018 except that Hurricane Energy plc and Energean Oil &amp; Gas plc will be added as additional constituent companies in place of Faroe Petroleum plc (which has delisted) and Ophir Energy plc (which is expected to delist during 2019).</p>
<b>SIP</b>	Executive Directors will be given the opportunity to participate in the SIP on the same terms as apply to all other eligible employees in the arrangement.
<b>Pension</b>	The Company will continue to contribute 15% of basic salary on behalf of Executive Directors or pay them an equivalent amount of additional salary.
<b>Non-Executive Directors' fees</b>	For 2019, both the annual Non-Executive Director fee and the additional annual fee for chairing the Audit and/or Remuneration Committees remain unchanged at £75,500 and £10,000 respectively.
<b>Chairman's fees</b>	The annual Chairman's fee for 2019 has been retained at £177,000.

The Directors' Remuneration Report was approved by the Board on 11 March 2019 and signed on its behalf by:

  
**Nicoletta Giadrossi**  
Chair of the Remuneration Committee  
11 March 2019



Directors' Report

The Directors of Cairn Energy PLC (registered in Scotland with Company Number SC226712) present their Annual Report and Accounts for the year ended 31 December 2018 together with the audited consolidated Financial Statements of the Group and Company for the year. These will be laid before the shareholders at the AGM to be held on 17 May 2019. The Directors' Report and the Strategic Report (which includes trends and factors likely to affect future development, performance and position of the business and a description of the principal risks and uncertainties of the Company's Group and can be found on pages 1 to 65 and is hereby incorporated by reference), collectively comprise the management report as required under the Financial Conduct Authority's Disclosure Guidance and Transparency Rules.

Results and dividend

The Group made a loss after tax of US\$1.1 billion (2017 profit after tax of US\$217.8 million (restated)).

The Directors do not recommend the payment of a dividend for the year ended 31 December 2018.

Strategic Report

Details of the Group's strategy and business model during the year and the information that fulfils the requirements of the Strategic Report can be found in the Strategic Report section on pages 1 to 65 of this document, which are deemed to form part of this report by reference.

Details of Cairn's offices and Cairn's advisers are given at the end of this report.

Change of control

All of the Company's share incentive plans contain provisions relating to a change of control and further details of these plans are provided in the Directors' Remuneration Report on pages 87 to 113. Generally, outstanding options and awards will vest and become exercisable on a change of control, subject to the satisfaction of performance conditions, if applicable, at that time.

On a change of control of the Company resulting in the termination of his employment, the current Chief Executive is entitled to compensation pursuant to his service contract. Further details of the relevant provisions are set out in the Directors' Remuneration Report on pages 97 and 98. There are no agreements providing for compensation to the Chief Financial Officer or to employees on a change of control and no such provision will be included in the contracts of other future appointees to the Board.

Other than the restated and amended Senior Secured Borrowing Base Facility Agreement entered into by the Company and other subsidiaries with DnB Bank ASA and other syndicated banks dated 7 September 2018 (the 'Facility Agreement'), there are no significant agreements to which the Company is a party that take effect, alter or terminate in the event of a change of control of the Company. In terms of clause 9.2 of the Facility Agreement, if there is a change of control of the Company, any lender may cancel its commitment and declare its participation in all outstanding utilisations, together with accrued interest and all other amounts accrued immediately due and payable.

Corporate governance

The Company's Corporate Governance Statement is set out on pages 68 to 79 and is deemed to form part of this report by reference.

Directors

The names and biographical details of the current Directors of the Company are given in the Board of Directors section on pages 66 and 67. In addition to those listed on those pages, during the year, Iain McLaren and Jackie Sheppard were Directors of the Board until their retirement as Non-Executive Directors on 15 May 2018 and 31 December 2018 respectively. The beneficial interests of the Directors in the ordinary shares of the Company are shown below:

	As at 31 December 2017 Number of shares	As at 31 December 2018 Number of shares	As at 8 March 2019 Number of shares
Simon Thomson	1,013,563	1,211,397	1,211,397
James Smith	221,744	461,204	461,204
Ian Tyler	0	0	0
Todd Hunt	72,012	72,012	72,012
Alexander Berger	40,008	40,008	40,008
Keith Lough	0	0	0
Peter Kallos	10,982	10,982	10,982
Nicoletta Giadrossi	0	0	0
Jackie Sheppard <sup>1</sup>	7,000	7,000	-
Iain McLaren <sup>2</sup>	32,878	-	-

Notes:  
1 Jackie Sheppard retired as a Non-Executive Director on 31 December 2018.  
2 Iain McLaren retired as a Non-Executive Director on 15 May 2018.

Details of outstanding awards over ordinary shares in the Company held by the Directors (or any members of their families) are set out in the Directors' Remuneration Report on pages 87 to 113.

None of the Directors has a material interest in any contract, other than a service contract, with the Company or any of its subsidiary undertakings. Details of the Directors' service contracts are set out in the Directors' Remuneration Report on pages 87 to 113.

### Share capital

The issued share capital of the Company is shown in section 6 of the notes to the Financial Statements. As at 8 March 2019, 589,514,291 ordinary shares of 231/169 pence each have been issued, are fully paid up and are quoted on the London Stock Exchange. The rights attaching to the ordinary shares are set out in the Company's Articles of Association. There are no special control rights in relation to the Company's shares and the Company is not aware of any agreements between holders of securities that may result in restrictions on the transfer of securities or on voting rights.

### Voting rights

The following paragraph details the position in relation to voting rights attaching to shares set out in the Company's Articles of Association. However, the Company recognises that best practice is now to hold a poll on all shareholder resolutions. It is the Company's current practice, therefore, to hold a poll and it is committed to doing so going forward.

Subject to any special rights or restrictions attaching to any class of shares, at a general meeting or class meeting, on a show of hands, every member present in person and every duly appointed proxy entitled to vote shall have one vote and on a poll, every member present in person or by proxy and entitled to vote shall have one vote for every share held by him/her. In the case of joint holders of a share, the vote of the senior member who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders and for this purpose seniority shall be determined by the order in which the names stand in the register of members in respect of the joint holding. Under the Companies Act 2006, members are entitled to appoint a proxy, who need not be a member of the Company, to exercise all or any of their rights to attend and to speak and vote on their behalf at a general meeting or class meeting. A member may appoint more than one proxy in relation to a general meeting or class meeting provided that each proxy is appointed to exercise the rights attached to a different share or shares held by that member. A corporation which is a member of the Company may authorise one or more individuals to act as its representative or representatives at any meeting of the Company, or at any separate meeting of the holders of any class of shares. A person so authorised shall be entitled to exercise the same powers on behalf of such corporation as the corporation could exercise if it were an individual member of the Company.

### Restrictions on voting

No member shall, unless the Directors of the Company otherwise determine, be entitled in respect of any share held by him/her to attend or vote at a general meeting of the Company either in person or by proxy if any call or other sum presently payable by him/her to the Company in respect of shares in the Company remains unpaid. Further, if a member has been served with a notice by the Company under the Companies Act 2006 requesting information concerning interests in shares and has failed in relation to any shares to provide the Company, within 14 days of the notice, with such information, the Directors of the Company may determine that such member shall not be entitled in respect of such shares to attend or vote (either in person or by proxy) at any general meeting or at any separate general or class meeting of the holders of that class of shares. Proxy forms must be submitted not less than 48 hours (or such shorter time as the Board may determine) (excluding, at the Board's discretion, any part of any day that is not a working day) before the time appointed for the holding of the meeting or adjourned meeting or, in the case of a poll taken more than 48 hours after it was demanded, not less than 24 hours (or such shorter time as the Board may determine) before the time appointed for the taking of the poll at which it is to be used.

### Variation of rights

Whenever the share capital of the Company is divided into different classes of shares, all or any of the special rights attached to any class may, subject to statute and unless otherwise expressly provided by the rights attached to the shares of that class, be varied or abrogated either with the consent in writing of the holders of not less than three-fourths in nominal value of the issued shares of that class or with the sanction of a special resolution passed at a separate general meeting of the holders of the shares of that class. At every such separate general meeting, the quorum shall be two persons holding or representing by proxy at least one-third in nominal value of the issued shares of the class. These provisions also apply to the variation or abrogation of the special rights attached to some only of the shares of any class as if the shares concerned and the remaining shares of such class formed separate classes. The rights attached to any class of shares shall, unless otherwise expressly provided by the terms of issue of such shares or the terms upon which such shares are for the time being held, be deemed not to be varied or abrogated by the creation or issue of further shares ranking *pari passu* with, or subsequent to, the first mentioned shares or by the purchase by the Company of its own shares.

### Transfer of shares

Subject to any procedures set out by the Directors in accordance with the Articles of Association, all transfers of shares shall be effected by instrument in writing in any usual or common form or in any other form acceptable to the directors of the Company. The instrument of transfer shall be executed by, or on behalf of, the transferor and (except in the case of fully paid shares) by, or on behalf of, the transferee. The transferor shall be deemed to remain the holder of the shares concerned until the name of the transferee is entered in the register of members of the Company.

The Directors may, in their absolute discretion and without assigning any reason therefor, refuse to register a transfer of any share which is not a fully paid share unless such share is listed on the Official List of the UK Listing Authority and traded on the London Stock Exchange's main market for listed securities. The Directors may also refuse to register a transfer of a share in uncertificated form where the Company is entitled to refuse (or is excepted from the requirement) under the Uncertificated Securities Regulations 2001 to register the transfer and they may refuse any such transfer in favour of more than four transferees.

The Directors may also refuse to register any transfer of a share on which the Company has a lien.

The Directors may, in their absolute discretion and without assigning any reason therefor, refuse to register a transfer of any share in certificated form unless the relevant instrument of transfer is in respect of only one class of share, is duly stamped or adjudged or certified as not chargeable to stamp duty, is lodged at the transfer office or at such other place as the Directors may determine, is accompanied by the relevant share certificate(s) and such other evidence as the Directors may reasonably require to show the right of the transferor to make the transfer and is in favour of not more than four transferees jointly. If the Directors refuse to register a transfer, they shall, as soon as practicable and in any event within two months after the date on which the transfer was lodged with the Company (in the case of a share in certificated form) or the date on which the operator instruction (as defined in the Uncertificated Securities Regulations 2001) was received by the Company (in the case of a share in uncertificated form) (or in either case such longer or shorter period (if any) as the Listing Rules may from time to time permit or require), send to the transferee notice of the refusal.

Directors' Report  
continued

Major Interests in share capital

As at 31 December 2018 and 1 March 2019 (being the latest practicable date prior to the date of this report), the Company had received notification that shareholdings of 3% and over were as set out in the table below.

	As at 31 December 2018	% Share Capital	As at 1 March 2019	% Share Capital
BlackRock	71,281,242	12.09	69,326,762	11.76
MFS Investment Management	57,054,517	9.68	56,288,749	9.55
Aberdeen Standard Investments	50,740,920	8.61	50,689,054	8.60
Janus Henderson Investors	38,823,193	6.59	33,051,731	5.61
Kames Capital	31,787,958	5.39	32,091,927	5.44
Hotchkis & Wiley	24,263,834	4.12	25,742,120	4.37
Franklin Templeton	24,165,518	4.10	24,196,418	4.10
Aviva Investors	20,802,738	3.53	23,665,624	4.01
Vanguard Group	18,822,490	3.19	19,205,538	3.26
Legal & General Investment Management	18,392,170	3.12	17,760,726	3.01

Political donations

No political donations were made and no political expenditure was incurred during the year.

Greenhouse gas emissions

Details of the Group's greenhouse gas emissions can be found in the Strategic Report section on page 60, which are deemed to form part of this report by reference.

Financial instruments

The financial risk management objectives and policies of the Company are detailed in section 3.10 of the Financial Statements.

Acquisition of own shares

No shares have been repurchased by the Company in the financial year to 31 December 2018.

Appointment and replacement of Directors

The Company's Articles of Association provide that directors can be appointed by the Company by ordinary resolution, or by the Board. The Nomination Committee makes recommendations to the Board on the appointment and replacement of directors. Further details of the rules governing the appointment and replacement of directors are set out in the Corporate Governance Statement on pages 72 and 73 and in the Company's Articles of Association.

Directors' indemnities

As permitted by the Company's Articles of Association, the Directors have the benefit of an indemnity which is a qualifying third party indemnity provision as defined in Section 234 of the Companies Act 2006 (a 'Qualifying Third Party Indemnity Provision'). The indemnity was in force throughout the last financial year and is currently in force.

Powers of the Directors

Subject to the Company's Articles of Association, UK legislation and any directions given by special resolution, the business of the Company is managed by the Board. The Directors currently have powers both in relation to the issuing and buying back of the Company's shares and are seeking renewal of these powers at the forthcoming AGM.

Articles of association

Unless expressly specified to the contrary therein, the Company's Articles of Association may be amended by a special resolution of the Company's shareholders.

**Directors' responsibility statement**

The Directors are responsible for preparing the Annual Report and Accounts, the Directors' Remuneration Report and the Financial Statements in accordance with applicable laws and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law, the Directors have prepared the Group and parent Company Financial Statements in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and as adopted by the European Union (EU). Under company law, the Directors must not approve the Financial Statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Company and of the profit or loss of the Group and Company for that period. In preparing these Financial Statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable IFRS issued by the IASB and adopted by the EU have been followed, subject to any material departures disclosed and explained in the Financial Statements; and
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Group and Company and enable them to ensure that the Financial Statements and the Directors' Remuneration Report comply with the Companies Act 2006 and, as regards the Group Financial Statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the Company's website ([www.cairnenergy.com](http://www.cairnenergy.com)). Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Following careful review and consideration of the Cairn Energy PLC Annual Report and Accounts 2018 (the 'Accounts'), the Directors consider that the Accounts, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the Group's performance, business model and strategy.

Each of the directors, whose names and functions are listed in the Board of Directors section on pages 66 and 67, confirm that, to the best of their knowledge:

- the Group Financial Statements, which have been prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position, and loss of the Group and loss of the Company; and
- the Strategic Report section on pages 1 to 65 of this document includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces.

**Disclosure of information to auditors**

Each of the Directors of the Company as at 11 March 2019, being the date this report is approved, confirm that, as far as they are aware, there is no relevant audit information of which the Company's auditors are unaware. In making this confirmation, the Directors have taken appropriate steps to make themselves aware of the relevant audit information and to establish that the Company's auditors are aware of this information.

**AGM 2019**

The AGM of the Company will be held in the Castle Suite of The Caledonian, a Waldorf Astoria Hotel, Princes Street, Edinburgh EH1 2AB at 12 noon (BST) on Friday, 17 May 2019. The resolutions to be proposed at the AGM are set out and fully explained in the Notice of AGM which has been posted to shareholders together with this Annual Report and Accounts.

**Recommendation**

The Board considers that all of the resolutions to be considered at the AGM are in the best interests of the Company and its shareholders as a whole and unanimously recommends that you vote in favour of all of the proposed resolutions, as they intend to do in respect of their own beneficial shareholdings.

This Annual Report was approved by the Board of Directors and authorised for issue on 11 March 2019.

By order of the Board

**Duncan Wood**

Company Secretary  
11 March 2019



# Independent Auditors' Report to the Members of Cairn Energy PLC

## Report on the audit of the financial statements

### Report on the audit of the financial statements

#### Opinion

In our opinion, Cairn Energy PLC's group financial statements and company financial statements (the 'financial statements'):

- give a true and fair view of the state of the group's and of the company's affairs as at 31 December 2018 and of the group's loss and the group's and the company's cash flows for the year then ended;
- have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as regards the company's financial statements, as applied in accordance with the provisions of the Companies Act 2006; and
- have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements, included within the Annual Report and Accounts (the 'Annual Report'), which comprise: the group and company balance sheets as at 31 December 2018; the group income statement and statement of comprehensive income, the group and company statements of cash flows and the group and company statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Our opinion is consistent with our reporting to the Audit Committee.

#### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ('ISAs (UK)') and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Independence

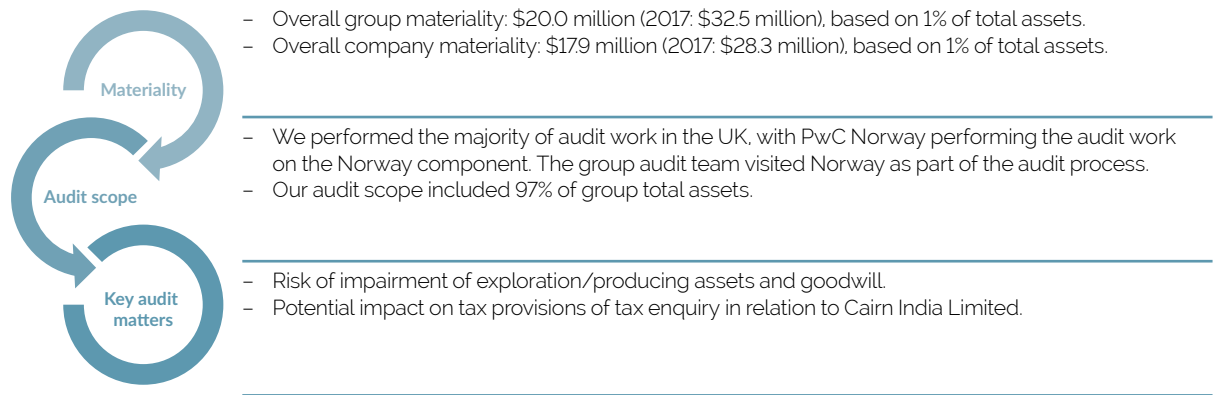
We remained independent of the group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, we declare that non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the company.

Other than those disclosed in note 6.4 to the financial statements, we have provided no non-audit services to the group or the company in the period from 1 January 2018 to 31 December 2018.

### Our audit approach

#### Overview



#### The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

#### Capability of the audit in detecting irregularities, including fraud

Based on our understanding of the group and industry, we identified that the principal risks of non-compliance with laws and regulations relate to the wide variety of jurisdictions in which the group operates, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the preparation of the financial statements such as the Companies Act 2006. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to areas of estimate in the financial statements (for example assessment of impairment of assets) and posting of inappropriate journal entries in order to improve reported performance. The group audit team shared this risk assessment with the component auditors so that they could include appropriate audit procedures in response to such risks in their work. Audit procedures performed by the group engagement team and component auditors included:

- Discussions with management, internal and external legal counsel and individuals outside the finance function, including consideration of known or suspected instances of non-compliance with laws and regulations and fraud;
- Understanding of management's controls designed to prevent and detect irregularities;
- Review of Board minutes and Internal Audit reports;
- Challenging assumptions and judgements made by management in its significant accounting estimates, in particular in relation to assessments of asset impairment; and
- Identifying and testing journal entries, in particular any journal entries posted by unexpected users, journals posted at unexpected times (for example weekends), journals reflecting unusual account combinations or journals with descriptions containing unexpected keywords.

There are inherent limitations in the audit procedures described above and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we would become aware of it. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. This is not a complete list of all risks identified by our audit.

Key audit matter

Risk of impairment of exploration/producing assets and goodwill

Exploration assets of \$595 million relate to costs incurred where there is expected future activity but no approved development plan at present, primarily Cairn's discovery offshore Senegal which accounts for \$463 million of this amount.

Developing and Producing assets of \$1.023 million reflects spend to 31 December 2018 on Catcher, Kraken and Nova in the North Sea.

The goodwill balance of \$126 million arose on the acquisitions of Agora and Nautical Petroleum in 2012.

Our audit risk in respect of impairment has been assessed as significant, consistent with prior year, because the market capitalisation of the group continues to be below the group's consolidated net assets. As at 31 December 2018 this difference was \$0.3bn (2017: \$0.5bn). This is an indicator that the group's assets may be impaired.

In addition, management identified specific impairment indicators on the Kraken producing asset and within the Senegal exploration assets.

Following impairment reviews, management recorded impairment of \$166 million on the carrying value of Kraken but no impairment was necessary on Senegal.

In determining the fair value of a Cash Generating Unit, Cairn management are required to make significant judgements in relation to the key assumptions such as:

- long-term oil price;
- reserve estimates;
- production volume profiles;
- cost profiles and escalation applied; and
- discount rates.

We focused on this area due to the significant values and the nature of the judgements and assumptions management are required to make in determining the existence of impairment triggers and the amount of impairment.

Refer to notes 2.3 and 2.7 to the financial statements.

How our audit addressed the key audit matter

We challenged management's assessment of impairment triggers for exploration assets under IFRS 6 by considering license conditions, the company's budgets and plans for, and results of, drilling. We did not identify any additional triggers that had not been identified by management.

We tested management's impairment reviews of goodwill, Senegal exploration assets and the North Sea development/ producing assets by performing the work described below:

- reviewing the mathematical accuracy of key formulae in the impairment models and found no exceptions;
- comparing the assumptions used within the impairment review models to approved budgets and business plans and other evidence of future intentions for the relevant assets, which we found to be materially consistent;
- comparing reserves and production profiles and matching capital and operating expenditure forecasts to group approved values, operator estimates or reserves reports from third party auditors. Where there were differences we sought explanations for these. We evaluated the third party reserves auditors' independence and expertise and discussed their reports directly with them;
- benchmarking key assumptions including commodity price and inflation against external data and recent public announcements from other oil companies;
- comparing the discount rates used for each asset to expected ranges prepared by our own valuations specialists;
- reviewing management's sensitivities and performing additional sensitivity analysis over key assumptions in the model in order to assess the potential impact of a range of possible outcomes; and
- assessing the inclusion of all appropriate assets and liabilities in the cash generating unit and in particular given that the recoverable amount is determined based on a fair value less costs of disposal, the inclusion or exclusion of certain tax related balances and agreed that all relevant balances had been included.

We found certain assumptions used by the group, including the long-term oil price, to be at the upper end of a market benchmark range, while other assumptions, for example the use of a 3 year forward curve, were around the median of a market benchmark range.

We found that the discount rates for the North Sea assets were towards the higher end of our expected range, but the discount rate used for Senegal was below our expected range.

Our review therefore focused on the sensitivity of the impairment assessments to movements in the reserves and production profiles, long-term oil price and, specifically for Senegal, discount rates.

We performed sensitivity analysis on these assumptions and did not identify any potential impairments on the Senegal, Catcher or Nova assets using reasonably possible scenarios.

Our sensitivity analysis over the Kraken impairment assessment identified an impairment in all scenarios. We concluded that the approach and assumptions taken by management in respect of the impairment charge that was recognised on Kraken were, as a whole, reasonable.

After performing the testing above, we concluded that the impairment assessments were performed appropriately and in accordance with the requirements of accounting standards.

We also reviewed the related disclosures in the Annual Report for compliance with accounting standards and consistency with the results of our work, with no matters arising.

Independent Auditors' Report to the Members of Cairn Energy PLC continued

Potential impact on tax provisions of tax enquiry in relation to Cairn India Limited

On 22 January 2014 the group received a request for information from the Indian tax authorities in respect of amendments introduced in the 2012 Indian Finance Act which seek to tax prior year transactions under legislation applied retroactively. At the same time, the group received an order not to sell the remaining shares in Cairn India Limited (now Vedanta Limited).

In February 2016, a final assessment order was received from the Indian tax authorities for an amount of \$4.3 billion (290 billion INR) including interest and penalties.

In tranches through the year to 31 December 2018, the Indian tax authorities sold the majority of Cairn's shareholding in Vedanta Limited, seizing the proceeds as payment against this final assessment.

Cairn are continuing to contest the assessment order in the Indian courts and a court of international arbitration and at this point there is still no certainty over the outcome.

Management have made judgements relating to the likelihood of an obligation arising and whether there is a need to recognise a provision or disclose a contingent liability. We therefore focused on this area as a result of the uncertainty and the potential material impact to the group.

Refer to Note 5.5 to the financial statements.

In assessing the potential impact of the assessment order from the Indian tax authorities we performed the following procedures:

- understood the group reconstruction under review by the Indian tax authorities, and the potential basis for any claim, including the relevant legislation and other precedent;
- read correspondence received by the group from the Indian tax authorities, updating our evidence from prior audits;
- discussed with management the advice and action they had taken with regards to the enquiry and reviewed any associated documents;
- discussed the matter directly with the group's external legal counsel to obtain corroboration for management's position; and
- considered the accounting treatment of the sale of the group's shareholding in Vedanta Limited and the seizure of the proceeds by the Indian tax authority.

We concluded that the position adopted in the financial statements was reasonable based on the work we performed, in particular:

- management's view that no provision for tax should be made at this time; and
- the adequacy of the disclosure in the Annual Report.

We determined that there were no key audit matters applicable to the company to communicate in our report.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the group and the company, the accounting processes and controls, and the industry in which they operate.

For operating purposes, the group is structured around three key segments: UK & Norway, Senegal and International. During 2018, all of the development and production activity has been in UK & Norway, with the main exploration activity occurring in Senegal.

For accounting purposes, the group is structured into 24 reporting units (or "components"). The majority of the finance function is based in Edinburgh, other than the UK & Norway component which is primarily accounted for in Stavanger, Norway. Work performed by PwC Norway was limited to the Norwegian entity included in the UK & Norway component and all other audit work was performed by our group audit team.

Our group scoping was based on total assets, consistent with our approach to materiality, and identified three financially significant components, comprising a high proportion of total group assets, which required an audit of their complete financial information. A further six components were subject to procedures addressing specific financial statement line items to obtain sufficient coverage.

The group audit team attended an audit planning meeting in Norway, as well as being directly involved in the scoping and review of the work performed by PwC Norway, directing areas of audit work to address the specific audit risks identified by the group audit team as relevant to the Norwegian entity, and maintained contact throughout the execution and completion of the audit, including an audit clearance call involving the group audit team and PwC Norway.

Our group audit approach resulted in scope coverage of 97% of the consolidated total assets, our key benchmark for planning and scoping our audit.

Materiality

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Company financial statements
Overall materiality	\$20.0 million (2017: \$32.5 million).	\$179 million (2017: \$28.3 million).
How we determined it	1% of total assets.	1% of total assets.
Rationale for benchmark applied	We believe that total assets is an appropriate measure that reflects the group's portfolio of oil and gas exploration and production assets.	The parent company's purpose is to hold investments in the subsidiaries of the group. The parent company has limited income statement transactions, therefore the appropriate benchmark for assessing materiality is total assets.

For each component in the scope of our group audit, we allocated a materiality that is less than our overall group materiality. The range of materiality allocated across components was between \$0.3 million and \$17.9 million. Certain components were audited to a local statutory audit materiality that was also less than our overall group materiality.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above \$1.0 million (group audit) (2017: \$1.6 million) and \$0.9 million (Company audit) (2017: \$1.4 million) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Going concern

In accordance with ISAs (UK) we report as follows:

Reporting obligation	Outcome
We are required to report if we have anything material to add or draw attention to in respect of the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting in preparing the financial statements and the directors' identification of any material uncertainties to the group's and the company's ability to continue as a going concern over a period of at least twelve months from the date of approval of the financial statements.	We have nothing material to add or to draw attention to.  However, because not all future events or conditions can be predicted, this statement is not a guarantee as to the group's and company's ability to continue as a going concern. For example, the terms on which the United Kingdom may withdraw from the European Union, which is currently due to occur on 29 March 2019, are not clear, and it is difficult to evaluate all of the potential implications on the company's trade, customers, suppliers and the wider economy.
We are required to report if the directors' statement relating to Going Concern in accordance with Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit.	We have nothing to report.

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, the Companies Act 2006 (CA06), ISAs (UK) and the Listing Rules of the Financial Conduct Authority (FCA) require us also to report certain opinions and matters as described below (required by ISAs (UK) unless otherwise stated).

Strategic Report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic Report and Directors' Report for the year ended 31 December 2018 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements. (CA06)

In light of the knowledge and understanding of the group and company and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic Report and Directors' Report. (CA06)



## Independent Auditors' Report to the Members of Cairn Energy PLC continued

### The directors' assessment of the prospects of the group and of the principal risks that would threaten the solvency or liquidity of the group

We have nothing material to add or draw attention to regarding:

- The directors' confirmation on page 32 of the Annual Report that they have carried out a robust assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency or liquidity.
- The disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.
- The directors' explanation on page 33 of the Annual Report as to how they have assessed the prospects of the group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We have nothing to report having performed a review of the directors' statement that they have carried out a robust assessment of the principal risks facing the group and statement in relation to the longer-term viability of the group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the UK Corporate Governance Code (the "Code"); and considering whether the statements are consistent with the knowledge and understanding of the group and company and their environment obtained in the course of the audit. (Listing Rules).

### Other Code Provisions

We have nothing to report in respect of our responsibility to report when:

- The statement given by the directors, on page 117, that they consider the Annual Report taken as a whole to be fair, balanced and understandable, and provides the information necessary for the members to assess the group's and company's position and performance, business model and strategy is materially inconsistent with our knowledge of the group and company obtained in the course of performing our audit.
- The section of the Annual Report on page 80 describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.
- The directors' statement relating to the company's compliance with the Code does not properly disclose a departure from a relevant provision of the Code specified, under the Listing Rules, for review by the auditors.

### Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006. (CA06)

### Responsibilities for the financial statements and the audit

#### Responsibilities of the directors for the financial statements

As explained more fully in the Directors' Responsibilities Statement set out on page 117, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group's and the company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the company or to cease operations, or have no realistic alternative but to do so.

#### Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: [www.frc.org.uk/auditorsresponsibilities](http://www.frc.org.uk/auditorsresponsibilities). This description forms part of our auditors' report.

#### Use of this report

This report, including the opinions, has been prepared for and only for the company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

**Other required reporting**

**Companies Act 2006 exception reporting**

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of directors' remuneration specified by law are not made; or
- the company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

**Appointment**

Following the recommendation of the audit committee, we were appointed by the directors on 23 May 2013 to audit the financial statements for the year ended 31 December 2013 and subsequent financial periods. The period of total uninterrupted engagement is 6 years, covering the years ended 31 December 2013 to 31 December 2018.

**Lindsay Gardiner (Senior Statutory Auditor)**

for and on behalf of PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors  
Edinburgh  
11 March 2019

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Group Income Statement  
For the year ended 31 December 2018

	Note	2018 US\$m	2017 (restated) US\$m
<b>Continuing operations</b>			
Revenue	2.1	410.3	33.3
Cost of sales	2.1	(131.4)	(5.9)
Depletion and amortisation	2.3	(171.2)	(20.8)
<b>Gross profit</b>		<b>107.7</b>	<b>6.6</b>
Pre-award costs	4.2	(25.4)	(43.8)
Unsuccessful exploration costs	2.2	(48.2)	(60.7)
Loss on disposal of intangible exploration/appraisal assets		(4.5)	-
Other operating income		5.0	2.4
Administrative expenses	4.3	(50.4)	(32.7)
(Impairment)/Reversal of impairment of property, plant & equipment – development/producing assets	2.3	(166.3)	23.0
<b>Operating loss</b>		<b>(182.1)</b>	<b>(105.2)</b>
Loss on derecognition of financial assets at fair value through profit or loss	3.1	(713.1)	(33.0)
(Loss)/Gain on financial assets at fair value through profit or loss	3.1	(352.2)	449.1
Finance income	4.5	19.2	77.0
Exceptional provision against finance income receivable		-	(104.7)
Finance costs	4.6	(37.8)	(10.4)
<b>(Loss)/Profit before taxation from continuing operations</b>		<b>(1,266.0)</b>	<b>272.8</b>
<b>Taxation</b>			
Tax credit/(charge)	5.2	130.5	(55.0)
<b>(Loss)/Profit for the year attributable to equity holders of the Parent</b>		<b>(1,135.5)</b>	<b>217.8</b>
<b>(Loss)/Profit per ordinary share – basic (cents)</b>	4.7	<b>(195.59)</b>	<b>377.2</b>
<b>(Loss)/Profit per ordinary share – diluted (cents)</b>	4.7	<b>(195.59)</b>	<b>36.84</b>

Group Statement of Comprehensive Income  
For the year ended 31 December 2018

	Note	2018 US\$m	2017 (restated) US\$m
<b>(Loss)/Profit for the year</b>		<b>(1,135.5)</b>	<b>217.8</b>
<b>Other Comprehensive Income – items that may be recycled to the Income Statement</b>			
Fair value on hedge options	3.6	36.1	(2.9)
Hedging loss recycled to the Income Statement	2.1	7.8	-
Currency translation differences		(15.6)	76.1
<b>Other Comprehensive Income for the year</b>		<b>28.3</b>	<b>73.2</b>
<b>Total Comprehensive (Expense)/Income for the year attributable to equity holders of the Parent</b>		<b>(1,107.2)</b>	<b>291.0</b>



## Group Balance Sheet

### As at 31 December 2018

	Note	2018 US\$m	2017 (restated) US\$m
<b>Non-current assets</b>			
Intangible exploration/appraisal assets	2.2	595.1	619.4
Property, plant & equipment – development/producing assets	2.3	1,022.9	1,206.5
Intangible assets – goodwill	2.6	125.8	128.2
Other property, plant & equipment and intangible assets		7.9	10.8
Financial assets at fair value through profit or loss	3.1	–	1,072.2
Derivative financial instruments	3.6	7.7	–
		<b>1,759.4</b>	<b>3,037.1</b>
<b>Current assets</b>			
Inventory	2.1	8.2	10.4
Financial assets at fair value through profit or loss	3.1	6.9	–
Cash and cash equivalents	3.2	66.3	86.5
Trade and other receivables	3.5	91.2	83.1
Derivative financial instruments	3.6	36.7	–
Income tax asset	5.3	32.8	38.4
		<b>242.1</b>	<b>218.4</b>
<b>Total assets</b>		<b>2,001.5</b>	<b>3,255.5</b>
<b>Current liabilities</b>			
Loans and borrowings	3.3	26.2	29.8
Finance lease liability	3.4	18.5	15
Derivative financial instruments	3.6	–	14
Trade and other payables	3.7	103.1	197.8
Deferred revenue	3.8	22.0	24.3
Provisions – other		2.8	2.8
		<b>172.6</b>	<b>257.6</b>
<b>Non-current liabilities</b>			
Provisions – decommissioning	2.4	119.1	121.1
Loans and borrowings	3.3	75.5	–
Finance lease liability	3.4	146.9	168.2
Deferred revenue	3.8	30.8	49.7
Deferred tax liabilities	5.4	66.5	164.4
		<b>438.8</b>	<b>503.4</b>
<b>Total liabilities</b>		<b>611.4</b>	<b>761.0</b>
<b>Net assets</b>		<b>1,390.1</b>	<b>2,494.5</b>
<b>Equity attributable to equity holders of the Parent</b>			
Called-up share capital	6.1	12.6	12.5
Share premium	6.1	489.7	488.0
Shares held by ESOP/SIP Trusts	6.1a,b	(19.6)	(10.2)
Foreign currency translation	6.1c	(190.5)	(174.9)
Capital reserves – non-distributable	6.1d	40.8	40.8
Merger reserve	6.1d	255.9	255.9
Hedge reserve	6.1e	41.0	(2.9)
Retained earnings		760.2	1,885.3
<b>Total equity</b>		<b>1,390.1</b>	<b>2,494.5</b>

The Financial Statements on pages 125 to 177 were approved by the Board of Directors on 11 March 2019 and signed on its behalf by:



**James Smith**  
Chief Financial Officer



**Simon Thomson**  
Chief Executive

## Group Statement of Cash Flows

### For the year ended 31 December 2018

	Note	2018 US\$m	2017 (restated) US\$m
<b>Cash flows from operating activities</b>			
(Loss)/Profit before taxation from continuing operations		(1,266.0)	272.8
<b>Adjustments for non-cash income and expense and non-operating cash flow:</b>			
Release of deferred revenue		(21.2)	(3.0)
Unsuccessful exploration costs		48.2	60.7
Depreciation, depletion and amortisation		174.9	23.4
Share-based payments charge		14.7	17.5
Impairment/(Reversal of impairment) of property, plant & equipment – development/producing assets		166.3	(23.0)
Loss on derecognition of financial assets at fair value through profit or loss		713.1	33.0
Loss/(Gain) on financial assets at fair value through profit or loss		352.2	(449.1)
Loss on disposal of intangible exploration/appraisal assets		4.5	–
Finance income		(19.2)	(77.0)
Exceptional provision against finance income receivable		–	104.7
Finance costs		37.8	10.4
<b>Adjustments for cash flow movements in assets and liabilities:</b>			
Income tax refund received relating to operating activities	5.3	20.4	2.8
Inventory movement		2.2	(10.4)
Trade and other receivables movement	3.5	(41.6)	(10.5)
Trade and other payables movement	3.7	22.7	2.5
Deferred revenue received	3.8	–	74.6
<b>Net cash flows from operating activities</b>		<b>209.0</b>	<b>29.4</b>
<b>Cash flows from investing activities</b>			
Expenditure on intangible exploration/appraisal assets	2.2	(188.0)	(186.6)
Expenditure on property, plant & equipment – development/producing assets	2.3	(109.5)	(145.6)
Proceeds on disposal of intangible exploration/appraisal assets		3.6	–
Income tax refund received relating to investing activities	5.3	16.4	27.6
Purchase of other property, plant & equipment and intangible assets		(2.9)	(7.9)
Interest received and other finance income		2.0	15.3
<b>Net cash flows used in investing activities</b>		<b>(278.4)</b>	<b>(297.2)</b>
<b>Cash flows from financing activities</b>			
Debt arrangement fees	3.3	(10.4)	–
Other interest and charges		(12.6)	(8.9)
Proceeds from borrowings	3.3	117.4	29.2
Repayment of borrowings	3.3	(31.2)	–
Proceeds from issue of shares		1.7	–
Cost of shares purchased	6.1a	(13.6)	(3.9)
Finance lease payments	3.4	(7.4)	–
Finance lease reimbursements	3.4	4.7	14
<b>Net cash flows from financing activities</b>		<b>48.6</b>	<b>17.8</b>
Net decrease in cash and cash equivalents		(20.8)	(250.0)
Opening cash and cash equivalents at beginning of year		86.5	334.9
Foreign exchange differences		0.6	16
<b>Closing cash and cash equivalents</b>	3.2	<b>66.3</b>	<b>86.5</b>

## Group Statement of Changes in Equity

### For the year ended 31 December 2018

	Equity share capital and share premium US\$m	Shares held by ESOP/SIP Trusts US\$m	Foreign currency translation US\$m	Merger and capital reserves US\$m	Hedge reserve (restated) US\$m	Available- for-sale reserve (restated) US\$m	Retained earnings (restated) US\$m	Total equity US\$m
At 1 January 2017	500.4	(10.2)	(250.1)	296.7	–	272.1	1,381.0	2,189.9
Change in accounting policy*	–	–	–	–	–	(272.1)	272.1	–
At 1 January 2017 (restated)*	500.4	(10.2)	(250.1)	296.7	–	–	1,653.1	2,189.9
Profit for the year	–	–	–	–	–	–	217.8	217.8
Fair value on hedge options	–	–	–	–	(2.9)	–	–	(2.9)
Currency translation differences recycled on disposal of subsidiary	–	–	(0.9)	–	–	–	0.9	–
Currency translation differences	–	–	76.1	–	–	–	–	76.1
Total comprehensive income	–	–	75.2	–	(2.9)	–	218.7	291.0
Share-based payments	–	–	–	–	–	–	17.5	17.5
Shares issued for cash	0.1	(0.1)	–	–	–	–	–	–
Cost of shares purchased	–	(3.9)	–	–	–	–	–	(3.9)
Cost of shares vesting	–	4.0	–	–	–	–	(4.0)	–
At 31 December 2017 (restated)*	500.5	(10.2)	(174.9)	296.7	(2.9)	–	1,885.3	<b>2,494.5</b>
Loss for the year	–	–	–	–	–	–	(1,135.5)	<b>(1,135.5)</b>
Fair value on hedge options	–	–	–	–	36.1	–	–	<b>36.1</b>
Hedging loss recycled to the Income Statement	–	–	–	–	7.8	–	–	<b>7.8</b>
Currency translation differences	–	–	(15.6)	–	–	–	–	<b>(15.6)</b>
Total comprehensive expense	–	–	<b>(15.6)</b>	–	<b>43.9</b>	–	<b>(1,135.5)</b>	<b>(1,107.2)</b>
Share-based payments	–	–	–	–	–	–	14.7	<b>14.7</b>
Shares issued for cash	0.1	(0.1)	–	–	–	–	–	–
Cost of shares purchased	–	(13.6)	–	–	–	–	–	<b>(13.6)</b>
Exercise of employee share options	1.7	–	–	–	–	–	–	<b>1.7</b>
Cost of shares vesting	–	4.3	–	–	–	–	(4.3)	–
<b>At 31 December 2018</b>	<b>502.3</b>	<b>(19.6)</b>	<b>(190.5)</b>	<b>296.7</b>	<b>41.0</b>	<b>–</b>	<b>760.2</b>	<b>1,390.1</b>

\* See notes 1.1b and 1.3 for details of changes in accounting policy as a result of the adoption of IFRS 9

## Section 1 – Basis of Preparation

This section contains the Group's going concern statement and significant accounting policies that relate to the Financial Statements as a whole. Significant accounting policies specific to one note are included within the note itself. Accounting policies have been consistently applied to all years presented.

This section also includes details on new EU endorsed accounting standards, amendments and interpretations and their expected impact on the financial performance of the Group, specifically the impact of IFRS 16.

### 1.1 Significant Accounting Policies

#### a) Basis of preparation

The consolidated Financial Statements of Cairn Energy PLC ('Cairn' or 'the Group') for the year ended 31 December 2018 were authorised for issue in accordance with a resolution of the Directors on 11 March 2019. Cairn is a limited company incorporated and domiciled in the United Kingdom whose shares are publicly traded. The registered office is located at 50 Lothian Road, Edinburgh, Scotland, EH3 9BY. The registered company number is SC226712.

Cairn prepares its Financial Statements on a historical cost basis, unless accounting standards require an alternate measurement basis. Where there are assets and liabilities calculated on a different basis, this fact is disclosed either in the relevant accounting policy or in the notes to the Financial Statements. The Financial Statements comply with the Companies Act 2006 as applicable to companies using International Financial Reporting Standards ('IFRS').

The Group's Financial Statements are prepared on a going concern basis.

#### b) Accounting standards

Cairn prepares its Financial Statements in accordance with applicable IFRS, issued by the International Accounting Standards Board ('IASB') as adopted by the EU, and interpretations issued by the International Financial Reporting Interpretations Committee ('IFRIC'), and Companies Act 2006 applicable to companies reporting under IFRS. The Group's Financial Statements are also consistent with IFRS as issued by the IASB as they apply to accounting periods ended 31 December 2018.

Effective 1 January 2018, Cairn has adopted the following amendments to standards:

- Amendments to IAS 28 'Investments in Associates and Joint Ventures'
- Amendments to IFRS 2 'Share Based Payments'
- IFRS 9 'Financial Instruments'
- IFRS 15 'Revenue from Contracts with Customers'

In addition, Cairn has early adopted the following interpretation issued by IFRIC:

- IFRIC 23 'Uncertainty over Income Tax Treatments'

The following standard, issued by the IASB and endorsed by the EU has yet to be adopted by the Group:

- IFRS 16 'Leases' (effective 1 January 2019)

#### IFRS 9 'Financial Instruments'

The adoption of IFRS 9 'Financial Instruments' on 1 January 2018 resulted in the re-classification of the Group's available-for-sale financial assets as financial assets held at fair value through profit or loss. Fair value gains and losses on the financial assets are now reflected through the Income Statement rather than Other Comprehensive Income. IFRS 9 also required the change in fair value relating to the time value of an option, designated for hedge accounting, to be recorded in Other Comprehensive Income; previously Cairn had recorded such movements through the Income Statement. Both these changes have been applied fully retrospectively and result in the restatement of comparative information, details of which can be found in note 1.3.

#### Other standards and amendments effective 1 January 2018

The other changes to IFRS effective 1 January 2018, including the adoption of IFRS 15 'Revenue from Contracts with Customers', have no significant impact on Cairn's Financial Statements. Relevant accounting policies have been reviewed and updated to reflect adoption of IFRS 15 but given that Cairn's customers are clearly identified, the performance obligations easily identifiable and the price readily determinable, the changes to policies have no impact on the resulting accounting.

#### IFRIC 23 'Uncertainty over Income Tax Treatments'

Cairn has chosen to adopt IFRIC 23 in advance of its effective date of 1 January 2019. This interpretation provides guidance on how uncertain tax treatments should be addressed and requires an entity to assess the probability of an uncertain tax position being accepted by the relevant taxation authority. The interpretation has been applied in calculating Cairn's unused tax losses disclosed in the notes to the Financial Statements. The prior year impact of adoption is not material and comparative disclosure has not been amended.



## Section 1 – Basis of Preparation continued

### 1.1 Significant Accounting Policies continued

#### b) Accounting standards continued

##### IFRS 16 'Leases'

IFRS 16 introduces a single lessee accounting model and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognise a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments.

In assessing the impact of IFRS 16, Cairn has identified the following assets where right-of-use assets and lease liabilities will be recognised on adoption:

- Accounting for the FPSO on the UK Catcher development/producing asset; and
- Accounting for non-cancellable leases of the Group's office premises in Edinburgh, London, Stavanger and Mexico City.

All other leases are either for periods of less than one year or have less than one year remaining on the date of adoption or are for low-value items which have no material impact on the Group's Financial Statements. Additional disclosure will be provided in the 2019 Financial Statements relating to these leases where material.

The Catcher FPSO is classified as an operating lease under the current accounting standard (see significant accounting judgements in section 3). Under IFRS 16 Cairn will recognise a right-of-use asset and lease liability for the vessel based on the minimum lease commitment over the expected charter period. On initial adoption of IFRS 16, Cairn will recognise a lease liability of US\$1475m and a corresponding right-of-use asset. Forecast minimum lease payments of US\$33.9m in 2019 will reduce the lease liability rather than be charged against profit as a lease charge. Forecast finance lease interest charges on the Catcher FPSO for 2019 are US\$72m. Variable lease charges in excess of the minimum commitment will continue to be charged against profit. The right-of-use asset will be amortised on a unit-of-production basis consistent with the Group's other development/producing assets. In the Cash Flow Statement, minimum lease payments relating to the Catcher FPSO will be classified as financing cash flows; currently they are included in operating cash flows. Variable lease payments shall remain in operating cash flows.

There is no change in accounting for the Kraken FPSO which is currently accounted for as a finance lease.

The Group's leasehold property will be measured based on the lease liability remaining on adoption of IFRS 16. The Group expects to recognise lease liabilities of US\$10.0m and corresponding right-of-use assets for the same amount. The assets will be amortised on a straight-line basis over the remaining life of the lease. Again, cash flows will be re-classified as financing rather than operating cash flows.

Cairn are continuing to assess accounting for leases held through joint operations, particularly where the operator enters into a lease agreement on behalf of the joint operation but where the joint operators are not direct parties to the lease agreement. Assessing whether such contracts will be treated as a lease by Cairn, as a non-operator, is likely to be highly judgemental with assumptions and other considerations based on the right of substitution by the operator and the reasonable certainty of leases being extended beyond an initial period.

Details of current finance leases can be found in note 3.4, while current operating lease commitments are disclosed in notes 2.1, 2.5 and 4.3 as they relate to operating costs, intangible exploration/appraisal assets and property, plant & equipment – development/producing assets, and administrative expenses respectively. A reconciliation of operating lease commitments at 31 December 2018 to the opening lease liabilities on adoption of IFRS 16 is as follows:

	Production costs US\$m	Exploration/ Appraisal assets US\$m	Development/ Producing assets US\$m	Administrative expenses US\$m	Total US\$m
Operating lease commitments	1716	212	134	115	2177
Attributable to:					
Leases yet to commence	–	(20.7)	(9.5)	–	(30.2)
Short-term leases	–	(0.5)	(3.9)	–	(4.4)
Lease of low value items	–	–	–	(0.3)	(0.3)
Gross lease liability	1716	–	–	11.2	182.8
Interest implicit in lease	(24.1)	–	–	(1.2)	(25.3)
Opening lease liability	1475	–	–	10.0	157.5

#### c) Basis of consolidation

The consolidated Financial Statements include the results of Cairn Energy PLC and its subsidiary undertakings to the balance sheet date. Where subsidiaries follow differing accounting policies from those of the Group, those accounting policies have been adjusted to align with those of the Group. Intercompany balances and transactions between Group companies are eliminated on consolidation, though foreign exchange differences arising on intercompany balances between subsidiaries with differing functional currencies are not offset.

The results of subsidiaries acquired or incorporated in any year are included in the Income Statement and Statement of Cash Flows from the effective date of acquisition while the results of subsidiaries disposed of or liquidated during the year are included in the Income Statement and Statement of Cash Flows to the date at which control passes from the Group.

1.1 Significant Accounting Policies continued

d) Joint arrangements

Cairn is a partner (joint operator) in oil and gas exploration and development licences which are unincorporated joint arrangements. All of the Group's current interests in these arrangements are determined to be joint operations. A full list of oil and gas licence interests can be found on page 178.

Costs incurred relating to an interest in a joint operation are capitalised in accordance with the Group's accounting policies for oil and gas assets as appropriate (notes 2.2 and 2.3). All the Group's intangible exploration/appraisal assets and property, plant & equipment – development/producing assets relate to interests in joint operations.

Cairn's working capital balances relating to joint operations are included in trade and other receivables (note 3.5) and trade and other payables (note 3.7). Any share of finance income or costs generated or incurred by the joint operation is included within the appropriate income statement account.

e) Foreign currencies

These Financial Statements continue to be presented in US dollars (US\$), the functional currency of the Parent.

In the financial statements of individual Group companies, Cairn translates foreign currency transactions into the functional currency at the rate of exchange prevailing at the transaction date (or an approximation thereof where not materially different). Monetary assets and liabilities denominated in foreign currency are translated into the functional currency at the rate of exchange prevailing at the balance sheet date. Exchange differences arising are taken to the Income Statement except for those incurred on borrowings specifically allocable to development projects, which are capitalised as part of the cost of the asset, though there were none in either the current or preceding year.

The Group maintains the Financial Statements of the Parent and subsidiary undertakings in their functional currency. Where applicable, the Group translates subsidiary financial statements into the presentation currency, US\$, using the closing rate method for assets and liabilities which are translated at the rate of exchange prevailing at the balance sheet date and rates at the date of transactions for income statement accounts. Cairn takes exchange differences arising on the translation of net assets of Group companies whose functional currency is non-US\$ directly to reserves.

Rates of exchange to US\$1 were as follows:

	Closing 2018	YTD Average 2018	Closing 2017	YTD Average 2017
GBP	0.784	0.749	0.740	0.776
NOK	8.641	8.133	8.209	8.263

Effective 1 January 2018, the functional currency of the Group's subsidiary undertaking Nautical Petroleum Limited, which holds the Group's interests in the UK Catcher and Kraken producing assets, changed from GBP to US\$. This change reflects the significant revenue streams now being generated by the entity which are receivable in US\$. Changes in functional currency are accounted for prospectively, therefore there is no adjustment to comparative information.

f) Exceptional items

Cairn does not present any items of income and expense as extraordinary items. However, where items have a significant impact on profit or loss, occur infrequently and are not part of the Group's normal operating cycle, such items may be disclosed as exceptional items on the face of the Income Statement.

## Section 1 – Basis of Preparation continued

### 1.2 Going Concern

The Directors have considered the factors relevant to support a statement of going concern.

In assessing whether the going concern assumption is appropriate, the Board and Audit Committee considered the Group cash flow forecasts under various scenarios, identifying risks and mitigants and ensuring the Group has sufficient funding to meet its current commitments as and when they fall due for a period of at least 12 months from the date of signing these Financial Statements.

The Directors have a reasonable expectation that the Group will continue in operational existence for this 12-month period and have therefore used the going concern basis in preparing the Financial Statements.

The Board and Audit Committee assessments of risk and mitigants to the Group's operational existence beyond this 12-month period is included in the Viability Statement on page 33.

### 1.3 Restatement of Comparative Financial Statements on Adoption of IFRS 9

	Issued Financial Statements US\$m	IFRS 9 restatement – financial assets US\$m	IFRS 9 restatement – hedge options US\$m	Restated 31 December 2017 US\$m
<b>Year ended 31 December 2017</b>				
<b>Income Statement</b>				
(Loss)/Gain on derecognition of financial assets	402.6	(435.6)	–	(33.0)
Gain on fair value of financial assets	–	449.1	–	449.1
Finance costs	(13.3)	–	2.9	(10.4)
Profit before taxation from continuing operations	256.4	13.5	2.9	272.8
Tax credit/(charge)	6.7	(61.7)	–	(55.0)
Profit for the year attributable to equity holders of the Parent	263.1	(48.2)	2.9	217.8
Profit per ordinary shares – basic (cents)	45.58	(8.37)	0.51	37.72
Profit per ordinary shares – diluted (cents)	44.52	(8.17)	0.49	36.84
<b>Group Statement of Comprehensive Income</b>				
Profit for the year	263.1	(48.2)	2.9	217.8
Surplus on valuation of financial assets	449.1	(449.1)	–	–
Deferred tax charge on valuation of financial assets	(96.5)	96.5	–	–
Surplus on valuation recycled to the Income Statement	(435.6)	435.6	–	–
Deferred tax charge on surplus on valuation recycled to the Income Statement	34.8	(34.8)	–	–
Fair value on hedge options	–	–	(2.9)	(2.9)
Other Comprehensive (Expense)/Income for the year	27.9	48.2	(2.9)	73.2
Total Comprehensive Income for the year	291.0	–	–	291.0
<b>Balance Sheet</b>				
Hedge reserve	–	–	(2.9)	(2.9)
Available-for-sale reserve	223.9	(223.9)	–	–
Retained earnings	1,658.5	223.9	2.9	1,885.3
Total equity	2,494.5	–	–	2,494.5
<b>Opening balances at 1 January 2017</b>				
<b>Balance Sheet</b>				
Available-for-sale reserve	272.1	(272.1)	–	–
Retained earnings	1,381.0	272.1	–	1,653.1
Total equity	2,189.9	–	–	2,189.9

At 1 January 2017, the opening available-for-sale reserve has been transferred to retained earnings following the change in accounting policy for financial assets. The adoption of IFRS 9 has no other impact on the assets or liabilities recorded and presented in the Group's 2016 year end Balance Sheet.

## Section 2 – Oil and Gas Assets and Operations

This section focuses on revenue generated during the year, related cost of sales and the assets in the Balance Sheet which form the core of Cairn's business. This section quantifies the financial impact of exploration/appraisal and development/producing activities fully described in the Operational Review on pages 18 to 31.

Included are details of the impairment reviews and tests performed on the Group's assets, including goodwill, and related sensitivity analysis.

### Significant accounting judgements in this section:

#### Impairment testing of oil and gas assets and related goodwill

Hydrocarbon reserves on the UK Kraken producing asset have been downgraded at the year end, reflecting the performance of the field to the balance sheet date which was below expectations. Goodwill relating to the UK & Norway segments is also tested for impairment annually and as such all development/producing assets in the region have been tested for impairment.

Cairn maintained its long-term oil price assumption at US\$70 per boe which it believes reflects current market conditions. The Group's three-year short-term assumption remains linked to the forward curve. Full details are included in note 2.3.

### Key estimates and assumptions in this section:

#### Estimation of hydrocarbon reserves

Oil and gas reserve volumes and related production profiles are estimated based on Cairn's internal process manual which follows industry best-practice. This represents Cairn's best estimate of reserves as at the reporting date. Cairn's Reserves and Resources Reporting Committee, which provides oversight, advice and guidance whilst providing senior level review, reports to the Group's Audit Committee before ultimately requesting approval of annual reserve volumes by the PLC Board.

Third-party audits of Cairn's reserves and resources are conducted annually.

A change in reserve volumes could impact depletion and decommissioning charges, impairment testing, release of deferred revenue and related deferred tax assets and liabilities.

#### Impairment testing of intangible exploration/appraisal assets and property, plant & equipment – development/producing assets

Where an indicator of impairment is identified on an intangible exploration/appraisal asset or a development/producing asset, an impairment test is conducted in accordance with the Group's accounting policies. The test compares either the carrying value of the asset or the carrying value of the cash-generating unit ('CGU') containing the asset, to the recoverable amount of that asset or CGU.

The recoverable amount of an asset represents its fair value less costs of disposal. This is based on either a verifiable third-party arm's length transaction from which a fair value can be obtained or, where there is no such transaction, the fair value less costs of disposal of an asset is calculated using a discounted post-tax cash flow model over the field life of the asset. Cairn do not believe that the value in use of the asset would materially exceed its fair value less cost of disposal.

The key assumptions used in the Group's discounted cash flow models reflect past experience and take account of external factors. These assumptions include:

- Short/medium-term oil price based on a three-month average forward curve for three years from the balance sheet date;
- Long-term oil price of US\$70 per boe (2017: US\$70 per boe) escalated at 2.0% (2017: 2.0%) per annum;
- Reserve estimates of discovered resource (2P and 2C) based on P50 reserve estimates;
- Production profiles based on Cairn's internal estimates including assumptions on performance of assets;
- Cost profiles for the development of the field and subsequent operating costs supplied by the operator and escalated at 2.0% (2017: 2.0%) per annum; and
- Post-tax discount rates of 10% (2017: 10%).

#### Impairment testing of goodwill

The goodwill arising from past corporate transactions in the UK & Norway region is tested for impairment by comparing the recoverable amount against the carrying value of the underlying oil and gas assets in the UK & Norway operating segment. As with individual assets, fair value less costs of disposal are based on discounted post-tax cash flow models where no recent third-party transactions exist on which a reliable market-based fair value can be established. The key assumptions are therefore consistent with those for testing intangible exploration/appraisal assets.

Where resource is prospective, fair value represents the expected net present value of the prospect, risk-weighted for future exploration success. Given the inherent risk associated with exploration activities, valuations of prospective resource are highly subjective.

#### Decommissioning estimates

Provisions for decommissioning are based on the latest estimates provided by operators, subject to review by Cairn and adjustment where deemed necessary. Costs provided to date are an estimate of the cost that would be incurred to remove and decommission facilities that existed at the year end and to plug and abandon development wells drilled to that date. Costs are escalated at 2.0% per annum (2017: 2.0%) and discounted at a risk-free rate of 2.0% (2017: 2.0%).



## Section 2 – Oil and Gas Assets and Operations continued

### 2.1 Gross Profit: Revenue and Cost of Sales

#### Accounting policies

##### Revenue

Revenue from oil sales represents the Group's share of sales, on a liftings basis, from its producing interests in the UK North Sea, at the point in time where ownership of the oil or gas has been passed to the buyer. This occurs when the customer takes delivery of a cargo of oil from the FPSO as this is the point in time that the consideration due is unconditional as only the passage of time is required before payment is due. Revenue is measured using the Brent (or estimated Brent) oil price plus or minus the applicable discount based on the quality of the oil.

Revenue from the sale of gas is recorded based on the volume of gas accepted each day by customers at the delivery point.

Revenue from royalties is calculated on production from fields in Mongolia.

##### Commodity price hedging

Cairn may hedge oil production for the Group's assets in line with hedging policies approved by the Board. Where a hedging instrument has been formally designated as a hedge for hedge accounting, changes in the intrinsic value of the hedged item and the time value of the option are recognised within Other Comprehensive Income (where the hedge is effective) based on fair value and are reclassified to the Income Statement when the hedged production itself affects profit or loss. Hedge effectiveness is assessed on a prospective basis at commencement and throughout the life of the option. Any hedge ineffectiveness identified is immediately charged to the Income Statement.

A change in the fair value of an option that is either not designated as a hedging instrument for hedge accounting or does not qualify for hedge accounting is recognised in the Income Statement.

##### Cost of sales

Production costs include Cairn's share of costs incurred by the joint operation in extracting oil and gas. Also included are marketing and transportation costs and loss-of-production insurance costs payable over the year.

Adjustments for overlift (where liftings taken by Cairn exceed the Group's working interest share), underlift (where liftings taken by Cairn are less than the Group's working interest share) and movements in inventory are included in cost of sales. Oil inventory is measured at market value in accordance with established industry practice.

Variable lease charges represent lease payments made on finance leases over and above the minimum lease commitment. Operating lease costs are charged directly to the Income Statement.

	2018 US\$m	2017 US\$m
Oil sales	393.2	19.9
Gas sales	2.5	–
Loss on hedge options	(7.8)	–
Release of deferred revenue (see note 3.8)	21.2	3.0
Revenue from oil and gas sales	409.1	22.9
Royalty income	1.2	10.4
<b>Revenue</b>	<b>410.3</b>	<b>33.3</b>
Production and other costs	(64.2)	(15.3)
Oil inventory and underlift adjustment	(7.7)	16.4
Variable and operating lease charges	(59.5)	(7.0)
<b>Cost of sales</b>	<b>(131.4)</b>	<b>(5.9)</b>
<b>Depletion and amortisation (see note 2.3)</b>	<b>(171.2)</b>	<b>(20.8)</b>
<b>Gross profit</b>	<b>107.7</b>	<b>6.6</b>

#### Revenue

Cairn receives revenue from its producing assets in the UK North Sea, Kraken and Catcher. Both assets commenced production during 2017. On Kraken, where only oil is sold, Cairn takes a full lifting of crude on a scheduled basis to reflect the Group's working interest. On Catcher, Cairn receives its working interest percentage share of each lifting of crude and the Group's working interest share of gas sales. Payment terms are within 30 days.

Sales volumes during the year averaged ~16,000 boepd for the two assets combined, realising an average sales price of US\$67.99/bbl.

2.1 Gross Profit: Revenue and Cost of Sales continued

Commodity price hedging

During 2018, Cairn realised losses on hedge options of US\$8.0m through the first 10 months of the year as the oil price exceeded the ceiling on several hedge contracts. This was offset by gains of US\$0.2m as the oil price fell back in November and December below the US\$60/bbl floor on one hedging contract. Hedging losses are recycled to the Income Statement from Other Comprehensive Income when the option matures.

Details on the Group's hedging position at 31 December can be found in note 3.6.

Cost of sales

Inventory of oil held at the year end is recorded at a market value of US\$8.2m (2017: US\$10.4m). Underlift adjustments on Kraken production volumes were US\$0.1m (2017: US\$5.6m) at 31 December 2018. Variable finance lease costs on the Kraken FPSO of US\$22.7m (2017: US\$6.0m), see note 3.4, are charged to the Income Statement with US\$36.8m (2017: US\$1.0m) of operating lease charges on the Catcher FPSO.

Operating lease commitment

At the year end, Cairn had the following operating lease commitment relating to the Catcher FPSO:

	2018 US\$m	2017 US\$m
<b>Production costs – operating lease charges</b>		
Not later than one year	33.9	33.9
After one year but no more than five years	114.7	124.0
After five years	23.0	47.4
	<b>171.6</b>	<b>205.3</b>

Following adoption of IFRS 16 on 1 January 2019, accounting for the Catcher FPSO will change with a lease liability and right-of-use asset being recorded on the Balance Sheet. See note 1.1b for further detail.

## Section 2 – Oil and Gas Assets and Operations continued

### 2.2 Intangible Exploration/Appraisal Assets

#### Accounting policy

Cairn follows a successful-efforts based accounting policy for oil and gas assets.

Costs incurred prior to obtaining the legal rights to explore an area are expensed immediately to the Income Statement as pre-award costs.

Expenditure incurred on the acquisition of a licence interest is initially capitalised on a licence-by-licence basis. Costs are held, undepleted, within intangible exploration/appraisal assets until such time as the exploration phase on the licence area is complete or commercial reserves have been discovered and a field development plan approved.

Exploration expenditure incurred in the process of determining oil and gas exploration targets is capitalised initially within intangible exploration/appraisal assets and subsequently allocated to drilling activities. Costs are recognised following a cost accumulation model where any contingent future costs on recognition of an asset are recognised only when incurred. This includes where Cairn has entered into a 'farm-in' agreement to either acquire or part-dispose of an exploration interest.

A farm-in is an agreement in which a party agrees to acquire from one or more of the existing licencees, an interest in an exploration licence, for a consideration which may consist of the performance of a specified work obligation on behalf of the existing licencees. This obligation may be subject to a monetary cap. Refund of full or partial costs incurred to date may also be included in a farm-in agreement. Where Cairn has part-disposed of an exploration licence interest through a farm-in arrangement, a 'farm-down', the contingent consideration payable by the third party on Cairn's behalf is not recognised in the Financial Statements. The future economic benefit which Cairn will receive as a result of the farm-down will be dependent upon future success of any exploration drilling.

Exploration/appraisal drilling costs are capitalised on a well-by-well basis until the success or otherwise of the well has been established. The success or failure of each exploration/appraisal effort is judged on a well-by-well basis. Drilling costs are written off on completion of a well unless the results indicate that hydrocarbon reserves exist and there is a reasonable prospect that these reserves are commercial and work to confirm the commercial viability of such hydrocarbons is intended to be carried out in the foreseeable future. Where results of exploration drilling indicate the presence of hydrocarbons which are ultimately not considered commercially viable, all related costs are written off to the Income Statement.

Following appraisal of successful exploration wells, if commercial reserves are established and technical feasibility for extraction demonstrated and approved in a field development plan, then the related capitalised intangible exploration/appraisal costs are transferred into a single field cost centre within property, plant & equipment – development/producing assets, after testing for impairment (see below).

Proceeds from the disposal or farm-down of part or all of an exploration/appraisal asset are credited initially to that interest with any excess being credited to the Income Statement.

#### Impairment

Intangible exploration/appraisal assets are reviewed regularly for indicators of impairment and tested for impairment where such indicators exist. An indicator that one of the Group's assets may be impaired is most likely to be one of the following:

- There are no further plans to conduct exploration activities in the area;
- Exploration drilling in the area has failed to discover commercial reserve volumes;
- Changes in the oil price or other market conditions indicate that discoveries may no longer be commercial; or
- Development proposals for appraisal assets in the pre-development stage indicate that it is unlikely that the carrying value of the exploration/appraisal asset will be recovered in full.

In such circumstances the intangible exploration/appraisal asset is allocated to any property, plant & equipment – development/producing assets within the same CGU and tested for impairment. Any impairment arising is recognised in the Income Statement for the year. Where there are no development assets within the CGU, the excess of the carrying amount of the exploration/appraisal asset over its recoverable amount is charged immediately to the Income Statement.

**2.2 Intangible Exploration/Appraisal Assets** continued

	Senegal US\$m	UK & Norway US\$m	International US\$m	Total US\$m
<b>Cost</b>				
At 1 January 2017	330.3	172.6	32.7	535.6
Foreign exchange	–	12.0	0.7	12.7
Additions	104.2	33.7	63.1	201.0
Unsuccessful exploration costs	–	(8.1)	(59.1)	(67.2)
At 31 December 2017	434.5	210.2	37.4	<b>682.1</b>
Foreign exchange	–	(0.6)	–	<b>(0.6)</b>
Additions	28.5	102.2	17.7	<b>148.4</b>
Disposals	–	(8.2)	–	<b>(8.2)</b>
Transfer to development/producing assets	–	(115.7)	–	<b>(115.7)</b>
Unsuccessful exploration costs	–	(62.6)	14.4	<b>(48.2)</b>
<b>At 31 December 2018</b>	<b>463.0</b>	<b>125.3</b>	<b>69.5</b>	<b>657.8</b>
<b>Impairment</b>				
At 1 January 2017	–	43.9	20.4	64.3
Foreign exchange	–	4.2	0.7	4.9
Unsuccessful exploration costs	–	–	(6.5)	(6.5)
<b>At 31 December 2017 and 2018</b>	<b>–</b>	<b>48.1</b>	<b>14.6</b>	<b>62.7</b>
<b>Net book value</b>				
At 31 December 2016	330.3	128.7	12.3	471.3
At 31 December 2017	434.5	162.1	22.8	619.4
<b>At 31 December 2018</b>	<b>463.0</b>	<b>77.2</b>	<b>54.9</b>	<b>595.1</b>

**Senegal**

All costs relating to Cairn's exploration and appraisal drilling in Senegal remain capitalised within intangible exploration/appraisal assets pending the Final Investment Decision expected during 2019.

Additions in the year, all funded through cash and working capital, include US\$24.3m on exploitation and pre-development costs, with the remaining US\$4.2m relating to exploration activities. The phased Field Development and Exploitation Plan has been submitted to the Government of Senegal, with first production targeted in 2022. Woodside have assumed the role of development operator as planned.

**UK & Norway**

In October 2018 approval was received, from the Norwegian Ministry of Petroleum and Energy, for the development and operation plan ('PDO') for the Nova development. Costs of US\$115.7m were transferred from intangible exploration/appraisal assets to property, plant & equipment – development/producing assets during the year.

Additions in the current year of US\$102.2m include US\$25.9m incurred on Nova pre-development activities prior to re-classification as a development asset. Well costs incurred in the year were US\$18.2m for the P1863 Agar-Plantain well and US\$16.7m for the P2184 Ekland well in the UK North Sea. In the Norwegian North Sea US\$17.1m was incurred for the PL682 Tethys well and US\$6.2m for the PL790 Raudåsen well. Further costs of US\$18.1m were incurred across the Group's other licences in the UK & Norway region. Total additions funded through cash and working capital were US\$104.9m, offset by a release of US\$2.7m of provisions for well abandonment costs.

The Tethys, Ekland and Raudåsen wells were unsuccessful and related costs of US\$27.5m, US\$14.6m and US\$8.3m respectively were charged to the Income Statement in 2018. Remaining unsuccessful costs of US\$12.2m include US\$8.0m relating to the P2077 Sunbeam licence where the well commitment has been transferred and the joint operators plan to relinquish.

Portfolio turnover in the UK & Norway during the year has resulted in the addition of three new licences in Norway, with three relinquished and one disposed of; and six new licences in the UK, with two relinquished. Cairn has also entered into a farm-out agreement for a 40% non-operated interest in Licence P2312 containing the Chimera prospect. This is conditional upon regulatory consent.

The net book value of exploration/appraisal assets remaining capitalised at the year end of US\$77.2m includes costs of US\$35.9m relating to discovered resource across two fields: the current year Agar discovery (US\$18.2m) and the Laverda discovery (US\$17.7m), both in the UK North Sea. The remaining US\$41.3m of costs have been incurred across further exploration licences in the UK and Norwegian North Sea, the Norwegian Sea and the Barents Sea.



## Section 2 – Oil and Gas Assets and Operations continued

### 2.2 Intangible Exploration/Appraisal Assets continued

#### International

All additions in the year were funded through cash and working capital.

#### Ireland

During 2018 exploration additions of US\$6.1m were incurred principally across two licences; LO16/18 and LO16/19. Unsuccessful costs of US\$0.9m were incurred on other licences in Ireland. Total costs capitalised at the year end were US\$14.8m.

#### Mexico

Three exploration wells are planned in shallow water in the Gulf of Mexico commencing in the second half of 2019. Two wells are planned in Block 9, with costs of US\$11.9m incurred in 2018. The third well is planned to be drilled in Block 7, with costs of US\$3.4m incurred during the year. A further US\$2.6m was incurred on Block 15 during 2018. Total costs capitalised in Mexico were US\$31.0m at the balance sheet date.

#### Western Sahara

Following the close out of licences, remaining accruals for US\$15.4m have been released and are credited against additions and reverse prior-years' unsuccessful exploration costs charges. No costs remain capitalised.

#### Others

The remaining additions and carrying value within International assets of US\$9.1m relates to licence acquisition and seismic costs on new licences.

#### Impairment review

At the year end, Cairn reviewed its intangible exploration/appraisal assets for indicators of impairment. Indicators were identified where future exploration plans remain uncertain or where the carrying value of assets relating to discovered resource may not be fully recovered through future development and production. Subsequent impairment tests performed did not identify any impairment.

### 2.3 Property, Plant & Equipment – Development/Producing Assets

#### Accounting policy

##### Costs

All costs incurred after the technical feasibility and commercial viability of producing hydrocarbons has been demonstrated and a development plan approved, are capitalised within development/producing assets on a field-by-field basis. Subsequent expenditure is capitalised only where it either enhances the economic benefits of the development/producing asset or replaces part of the existing development/producing asset. Any remaining costs associated with the part replaced are expensed.

Costs of borrowings relating to the ongoing construction of development/producing assets and facilities are capitalised during the development phase of the project. Capitalisation ceases once the asset is ready to commence production.

Net proceeds from any disposal, part-disposal or farm-down of development/producing assets are credited against the appropriate portion of previously capitalised cost. A gain or loss on disposal of a development/producing asset is recognised in the Income Statement to the extent that the net proceeds, measured at fair value, exceed or are less than the appropriate portion of the net capitalised costs.

##### Depletion

Depletion is charged on a unit-of-production basis, based on proved and probable reserves on a field-by-field basis. Fields within a single development area may be combined for depletion purposes. Where production commences prior to completion of the development, costs to be depleted include the costs-to-complete of the facility required to extract the volume of reserves recorded.

##### Impairment

Development/producing assets are reviewed for indicators of impairment at the balance sheet date. Indicators of impairment for the Group's development assets include:

- Downward revisions of reserve estimates;
- Increases in cost estimates for development projects; or
- A decrease in the oil price or other negative changes in market conditions.

Impairment tests are carried out on each development/producing asset at the balance sheet date where an indicator of impairment is identified. The test compares the carrying value of an asset to its recoverable amount based on the higher of its fair value less costs of disposal or value in use. Where the fair value less costs of disposal supports the carrying value of the asset, no value-in-use calculation is performed.

If it is not possible to calculate the fair value less costs of disposal of an individual asset, the fair value less costs of disposal is calculated for the CGU containing the asset and tested against the carrying value of the assets and liabilities in the CGU for impairment. Where an asset can be tested independently for impairment, this test is performed prior to the inclusion of the asset into a CGU for further impairment tests.

If the carrying amount of the asset or CGU exceeds its recoverable amount, an impairment charge is made.

Where there has been a charge for impairment in an earlier period that charge will be reversed in a later period where there has been a change in circumstances to the extent that the recoverable amount is higher than the net book value at the time. In reversing impairment losses, the carrying amount of the asset will be increased to the lower of its original carrying value or the carrying value that would have been determined (net of depletion) had no impairment loss been recognised in prior years.

**2.3 Property, Plant & Equipment – Development/Producing Assets** continued**Accounting policy** continued**Decommissioning**

At the end of the producing life of a field, costs are incurred in plugging and abandoning wells, removing subsea installations and decommissioning production facilities. Cairn recognises the full discounted cost of decommissioning as an asset and liability when the obligation to rectify environmental damage arises. The decommissioning asset is included within property, plant & equipment – development/producing assets with the cost of the related installation. The liability is included within provisions.

Revisions to the estimated costs of decommissioning which alter the level of the provisions required are also reflected in adjustments to the decommissioning asset. The amortisation of the asset is calculated on a unit-of-production basis based on proved and probable reserves. The amortisation of the asset is included in the depletion charge in the Income Statement and the unwinding of discount of the provision is included within finance costs.

	UK & Norway US\$m	UK & Norway leased asset US\$m	Total US\$m
<b>Cost</b>			
At 1 January 2017	756.1	–	756.1
Foreign exchange	81.6	8.9	90.5
Additions	212.5	204.9	417.4
Re-measurement of right-of-use leased asset	–	(36.4)	(36.4)
At 31 December 2017	1,050.2	177.4	<b>1,227.6</b>
Foreign exchange	(6.8)	–	<b>(6.8)</b>
Additions	56.5	–	<b>56.5</b>
Transfer from exploration/appraisal assets	115.7	–	<b>115.7</b>
Re-measurement of right-of-use leased asset	–	(11.5)	<b>(11.5)</b>
<b>At 31 December 2018</b>	<b>1,215.6</b>	<b>165.9</b>	<b>1,381.5</b>
<b>Depletion, amortisation and impairment</b>			
At 1 January 2017	21.0	–	21.0
Foreign exchange	2.2	0.1	2.3
Depletion and amortisation	17.4	3.4	20.8
Reversal of impairment	(23.0)	–	(23.0)
At 31 December 2017	17.6	3.5	<b>21.1</b>
Depletion and amortisation	153.0	18.2	<b>171.2</b>
Impairment charge	166.3	–	<b>166.3</b>
<b>At 31 December 2018</b>	<b>336.9</b>	<b>21.7</b>	<b>358.6</b>
<b>Net book value</b>			
At 31 December 2016	735.1	–	735.1
At 31 December 2017	1,032.6	173.9	1,206.5
<b>At 31 December 2018</b>	<b>878.7</b>	<b>144.2</b>	<b>1,022.9</b>

Exploration/appraisal costs relating to Nova were transferred to development assets after testing for impairment – see note 2.2. During Q4 further development costs of US\$13.6m were incurred in relation to the field.

The UK Kraken and Catcher fields ramped up production during 2018 with gross production of 30,300 and 43,000 boepd respectively. Combined depletion charges for the year were US\$153.0m (2017: US\$174m).

Kraken additions represent development activity spend of US\$31.8m (2017: US\$100.0m), all funded through cash and working capital, which was offset by a US\$23.0m reversal of accruals following the successful renegotiation of the development drilling rig contract. During 2017, there was a further US\$9.6m of non-cash decommissioning asset increases. The decommissioning asset remains unchanged in 2018.

On Catcher, additions funded through cash and working capital during the year were US\$28.8m (2017: US\$83.9m) with further non-cash additions of US\$5.3m (2017: US\$19.0m) relating to the increase in the Catcher decommissioning asset.

## Section 2 – Oil and Gas Assets and Operations continued

### 2.3 Property, Plant & Equipment – Development/Producing Assets continued

#### Leased assets

During 2017, US\$200.8m, the net present value of future minimum lease payments was recorded on the Balance Sheet for the Kraken FPSO, as a right-of-use producing asset. Further additions in 2017 of US\$4.1m represent the recognition of a decommissioning asset associated with the FPSO. Subsequent to initial recognition, the lease agreement was amended which reduced the finance lease liability by US\$36.4m and a corresponding reduction to the leased production asset.

In the second half of 2018, the lease agreement was further amended resulting in a reduction of the lease liability and right-of-use asset by US\$11.5m – see note 3.4.

Amortisation of US\$18.2m (2017: US\$3.4m) was charged against the FPSO in the year.

#### Impairment review

At the year end, impairment tests were conducted on the Group's UK & Norway development/producing assets, resulting in an impairment charge of US\$166.3m on the UK Kraken producing asset. No impairment arose on either Catcher or Nova. Sensitivity analysis on the Group's impairment charge can be found in note 2.7. The impairment on Kraken reflects performance of the field to the balance sheet date that is below expectations and has led to a reserves downgrade at the year end.

During 2017, impairments of US\$23.0m were reversed due to an increase in the volume of oil reserves estimated to be recoverable through production on Catcher. All previous impairments recorded on the Catcher development/producing asset have been fully reversed.

### 2.4 Provisions – Decommissioning

	Exploration well abandonment US\$m	Development/ producing assets US\$m	Total US\$m
At 1 January 2017	5.3	74.3	79.6
Foreign exchange	0.4	7.7	8.1
Unwinding of discount	-	2.2	2.2
(Released)/Provided in the year	(1.5)	32.7	31.2
At 31 December 2017	4.2	116.9	121.1
Foreign exchange	(0.2)	(6.7)	(6.9)
Unwinding of discount (note 4.6)	-	2.3	2.3
(Released)/Provided in the year	(2.7)	5.3	2.6
<b>At 31 December 2018</b>	<b>1.3</b>	<b>117.8</b>	<b>119.1</b>

The decommissioning provisions represent the present value of decommissioning costs related to the Kraken and Catcher development/producing assets. The provisions are based on operator cost estimates, subject to internal review and amendment where considered necessary and are calculated using assumptions based on existing technology and the current economic environment, with a discount rate of 2% per annum (2017: 2%). The reasonableness of these assumptions is reviewed at each reporting date to take into account any material changes required. No provision is required at the year end for development activities undertaken on Nova.

The decommissioning provisions represent management's best estimate of the obligation arising based on work undertaken at the balance sheet date. Actual decommissioning costs will depend upon the prevailing market conditions for the work required at the relevant time.

During the year, the decommissioning estimate for Catcher increased by US\$5.3m. The Kraken decommissioning estimate remained unchanged.

The decommissioning of the Group's development/producing assets is forecast to occur between 2026 and 2040.

### 2.5 Capital Commitments

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Oil and gas expenditure:</b>		
Intangible exploration/appraisal assets	146.1	63.2
Property, plant & equipment – development/producing assets	80.1	120.8
<b>Contracted for</b>	<b>226.2</b>	<b>184.0</b>

Capital commitments represent Cairn's share of obligations in relation to its interests in joint operations. These commitments include Cairn's share of the capital commitments of the joint operations themselves.

The capital commitments for intangible exploration/appraisal assets include US\$35.5m for operations in the UK & Norway. The remaining US\$110.6m includes US\$38.7m of commitments in Senegal and US\$71.9m on International assets, predominantly relating to Mexico.

**2.5 Capital Commitments** continued

The capital commitments for property, plant & equipment – development/producing assets relate principally to Nova and exclude the costs of the Kraken FPSO finance lease obligations, which are disclosed in note 3.4.

Cairn enters into operating leases both at a corporate level and together with partners through its interests in joint operations. Operating lease costs for items directly attributable to oil and gas exploration and development activities, such as drilling rigs, are capitalised within intangible exploration/appraisal assets or property, plant & equipment – development/producing assets as appropriate.

At the year end, Cairn had the following operating lease commitments relating to oil and gas exploration, appraisal and development activities including commitments for leases that are yet to commence. These amounts are also included in total capital commitments above and exclude operating lease commitments relating to producing activities.

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Intangible exploration/appraisal assets</b>		
Not later than one year	20.3	3.1
After one year but no more than five years	0.9	–
	<b>21.2</b>	<b>3.1</b>
<b>Property, plant &amp; equipment – development/producing assets</b>		
Not later than one year	3.9	34.5
After one year but no more than five years	9.5	10.3
	<b>13.4</b>	<b>44.8</b>

The Group has no further material capital expenditure committed at the balance sheet date.

**2.6 Intangible Assets – Goodwill****Accounting policy**

Cairn allocates the purchase consideration on the acquisition of a subsidiary to the assets and liabilities acquired on the basis of fair value at the date of acquisition. Any excess of the cost of acquisition over the fair value of the assets and liabilities is recognised as goodwill. Any goodwill arising is recognised as an asset and is subject to annual review for impairment. Goodwill is written off where circumstances indicate that the recoverable amount of the underlying CGU including the asset may no longer support the carrying value of goodwill. Any such impairment loss arising is recognised in the Income Statement for the year. Impairment losses relating to goodwill cannot be reversed in future years.

In testing for impairment, goodwill arising on business combinations is allocated from the date of acquisition to the group of CGUs representing the lowest level at which it will be monitored. Cairn's policy is to monitor goodwill at operating segment level. Currently, no operating segments containing goodwill are combined into segments for reporting.

The recoverable amount of a CGU, or group of CGUs, within the segment is based on its fair value less costs of disposal, using estimated cash flow projections over the licence period of the exploration assets risk-weighted for future exploration success. The key assumptions are sensitive to market fluctuations and the success of future exploration drilling programmes. The most likely factor which will result in a material change to the recoverable amount of the CGU is the result of future exploration drilling, which will determine the licence area's future economic potential.

	UK & Norway US\$m	Total US\$m
<b>Net book value</b>		
At 1 January 2017	118.9	118.9
Foreign exchange	9.3	9.3
At 31 December 2017	128.2	<b>128.2</b>
Foreign exchange	(2.4)	<b>(2.4)</b>
<b>At 31 December 2018</b>	<b>125.8</b>	<b>125.8</b>

Goodwill is fully allocated to the UK & Norway operating segment. At 31 December 2018, the goodwill impairment test did not identify any impairment.



## Section 2 – Oil and Gas Assets and Operations continued

### 2.7 Impairment Testing Sensitivity Analysis

#### UK & Norway

At 31 December 2018, impairment tests were conducted on the Group's development/producing assets, on goodwill and on certain exploration/appraisal assets where indicators of impairment were identified.

The recoverable amount for all assets is based on fair value less costs of disposal estimated using discounted cash flow modelling. The key assumptions used in determining the fair value are often subjective, such as the future long-term oil price assumption, or the operational performance of the assets. With Cairn's two North Sea producing assets completing their first full year of production, reserve estimates have been updated to reflect the performance of fields to the balance sheet date, which have either been in line or exceeded pre-drill estimates for the Catcher asset but have been below expectations for the Kraken asset where performance issues with the FPSO have led to lower than expected daily production volumes. Following a downgrade of recoverable reserves in place at the year end, an impairment charge has been recorded on the Kraken asset of US\$166.3m.

Cairn has run sensitivities on its long-term oil price assumption of US\$70/boe, using alternate long-term price assumptions of US\$65/boe and US\$60/boe and a long-term assumption equal to the forward curve price at the end of the Group's three-year short-term assumption period (US\$66.3/boe). These are considered to be reasonably possible changes for the purposes of sensitivity analysis.

There was no impairment of the Group's exploration/appraisal assets under any of the sensitivities run. The impact of these changes on the impairment recorded on the Group's development/producing assets together with the impairment that would arise on goodwill at the balance sheet date is summarised below:

Reduction in long-term oil price assumption to:	Forward Curve US\$m	US\$65 US\$m	US\$60 US\$m
Impairment of development/producing assets	(205.9)	(218.6)	(272.7)
Impairment of goodwill	(18.5)	(23.0)	(42.6)
<b>Total impairment</b>	<b>(224.4)</b>	<b>(241.6)</b>	<b>(315.3)</b>

All impairment arising on development/producing asset sensitivities relates to the Kraken asset and the numbers above would replace the current impairment charge of US\$166.3m.

The Group's proved and probable and contingent reserve estimates are based on P50 probabilities. P10 and P90 estimates are also produced but would not provide a reasonable estimate to be used in calculating the fair value of the Group's assets. The reserve estimates are incorporated into production profiles which include assumptions on the performance of the asset. Cairn's current assumptions imply a maximum uptime for producing assets of 85%-90%.

Further sensitivity analysis was performed on the Kraken asset reducing forecast production volumes and associated operating costs by 5% and 10%, as an approximation of a reduction in the uptime of the asset, which are seen as reasonably possible alternatives. With this reduced production, the following impairment charges would arise on development/producing assets (no impairment arises on goodwill):

Reduction in production volumes:	5% reduction in production US\$m	10% reduction in production US\$m
Impairment of development/producing assets	(219.9)	(271.3)

No sensitivities have been performed on Catcher production volumes where performance has been either in line or ahead of expectations. Therefore there is no evidence to suggest that reduced production levels would be a reasonably possible alternative assumption to apply.

#### Senegal

The Group's exploration assets in Senegal have been tested for impairment as a single cash generating unit. No impairment was recorded. Downside sensitivity analysis performed on reasonably possible changes in assumptions, including the Group's oil price assumption using the sensitivities above, did not identify an impairment.

## Section 3 – Financial Assets, Working Capital and Long-term Liabilities

This section includes details of the Group's cash resources and the loans and borrowings drawn in the year, together with details of the finance lease liability recognised on the Kraken FPSO.

Key accounting issues in this section include the impact on Cairn's financial assets of the sale by the IITD of the majority of Cairn's shares in Vedanta Limited.

### Significant accounting judgements in this section:

#### Lease classification of Kraken and Catcher FPSO lease agreements

Cairn is party to lease agreements on its North Sea producing assets for the charter of an FPSO on each licence. In determining whether each lease should be classified as either a finance lease or an operating lease, Cairn has considered the substance of both transactions individually, including the term of each lease in relation to the expected life of the asset and whether options to purchase the FPSO at the end of the lease term are reasonably certain to be exercised.

Cairn concluded that the lease agreement for the Kraken FPSO, where it is considered reasonably certain that the FPSO will be purchased by the joint operation toward the end of the initial term, should be classified as a finance lease. By contrast, the Catcher FPSO, with a shorter initial lease term and with no current expectation that the joint operation shall purchase the FPSO at the end of that lease term, was determined to be an operating lease, with substantially all risks and rewards of ownership remaining with the lessor.

The new accounting standard, IFRS 16 'Leases', is effective for Cairn's financial year beginning 1 January 2019 and will require the Catcher FPSO operating leased asset to be recognised on the Balance Sheet as a right-of-use asset. Further details are provided in note 1.1b.

### Key estimates and assumptions in this section:

#### Measurement of Kraken FPSO finance lease

The measurement of the Kraken FPSO lease liability of US\$200.8m on initial recognition was:

- Calculated from the date the lease agreement became effective which was on commencement of the lease in June 2017;
- Based on minimum lease commitments of 50% from the end of the 'ramp-up period' (the period from first oil production to the FPSO operating at contracted performance levels) in the original lease term, with no adjustment for a contingent Interim Production Period agreement;
- Inclusive of the final optional purchase price of US\$56.6m;
- Inclusive of refunds due after commencement of the lease resulting from delays in delivering the FPSO; and
- Calculated using an interest rate based on the Group's incremental borrowing rate at commencement rather than a rate determined in the lease agreement which could not be readily determined.

Post initial recognition, adjustments of US\$36.4m in 2017 and US\$11.5m in 2018 have reduced the lease liability and right-of-use asset following amendments to the lease agreement. The revised liability is computed based on updated minimum lease commitments using an interest rate calculated at the date of the modification. Minimum lease payments were reduced to nil during an interim production period which ran from the end of the ramp-up period in 2017 through to September 2018 when the partners in the joint operation agreed a further amendment to the original lease agreement.

## Section 3 – Financial Assets, Working Capital and Long-term Liabilities continued

### 3.1 Financial Assets at Fair Value through Profit or Loss

#### Accounting policy

The Group's financial assets at fair value through profit or loss represents listed equity shares and redeemable preference shares which are, or were, held at fair value (the quoted market price). Movements in the fair value of the financial assets during the year and gains or losses on derecognition of the assets are recognised directly in the Income Statement.

	Listed equity shares US\$m	75% Redeemable preference shares of INR10 US\$m	Total US\$m
<b>Fair value</b>			
At 1 January 2017	656.1	–	656.1
Surplus on valuation of Cairn India Limited shares prior to merger	163.6	–	163.6
Disposal of shares in Cairn India Limited on merger	(819.7)	–	(819.7)
Addition of shares in Vedanta Limited on merger	671.8	114.9	786.7
Surplus on valuation of Vedanta Limited shares after merger	279.7	5.8	285.5
At 31 December 2017	951.5	120.7	<b>1,072.2</b>
Deficit on valuation of Vedanta Limited shares	(335.8)	(16.4)	<b>(352.2)</b>
Derecognition of shares in Vedanta Limited	(608.8)	(104.3)	<b>(713.1)</b>
<b>At 31 December 2018</b>	<b>6.9</b>	<b>–</b>	<b>6.9</b>

Following adoption of IFRS 9 on 1 January 2018, fair value movements during the period are recognised in the Income Statement and comparative information has been restated accordingly, see note 1.3. There is no change to the valuation of the asset following the adoption of IFRS 9.

In April 2017, Cairn India Limited underwent a merger with Vedanta Limited as a result of which the Group held both equity shares and redeemable preference shares in Vedanta Limited. Prior to that date the Group held a 9.8% stake in Cairn India Limited via equity shares, the market value of which at the time of the merger was US\$819.7m. The market value of the Vedanta shares on the merger date was US\$786.7m, resulting in a loss on derecognition of financial assets of US\$33.0m.

Between May and October 2018 the IITD instructed sales of 99% of Cairn's equity shareholding in Vedanta Limited and seized the proceeds of US\$608.8m. Shares were sold in multiple transactions at prices ranging from INR 286.83 (US\$4.25) per share down to INR 229.68 (US\$3.23) per share. The IITD also seized the proceeds of US\$104.3m on the redemption of the preference shares in October 2018. Cairn is currently restricted from selling its remaining shares in Vedanta Limited. See note 5.5.

The remaining listed equity shares held at 31 December 2018 in the ordinary share capital of Vedanta Limited, listed in India, have by their nature no fixed maturity or coupon rate. These listed equity securities present the Group with an opportunity for return through dividend income and trading gains and are Level 1 assets measured at fair value.

### 3.2 Cash and Cash Equivalents

	31 December 2018 US\$m	31 December 2017 US\$m
Cash at bank	9.1	24.7
Money market funds	57.2	19.5
Short-term bank deposits	–	24.0
Tri-party repurchase transactions	–	18.3
<b>Cash and cash equivalents</b>	<b>66.3</b>	<b>86.5</b>

Cash and cash equivalents earn interest at floating rates. Short-term investments are made for varying periods ranging from instant access to unlimited, but generally not more than three months depending on the cash requirements of the Group.

Cairn invests surplus funds into high-quality liquid investments, including money market funds, short-term bank deposits and tri-party repurchase transactions ('repos'). Cairn limits the placing of such funds and other investments to banks or financial institutions that have ratings of A- or above from at least two of Moody's, Standard & Poor's or Fitch, unless a sovereign guarantee is available from a AAA-rated government. The counterparty limits vary between US\$50.0m and US\$200.0m depending on the ratings of the counterparty. No investments are placed with any counterparty with a five-year credit default swap exceeding 250 bps. Investments in money market liquidity funds are only made with AAA rated liquidity funds and the maximum holding in any single fund is 5% of total investments. Where investments are made in repos, collateral is fixed income debt securities with a minimum rating of BBB- which is managed by Euroclear. No adjustment is made to the counterparty credit rating to reflect the collateral held when assessing investment options. The Group's Treasury function manages the credit risk associated with such investments as detailed in note 3.10.

3.3 Loans and Borrowings

Cairn has two loan facilities at the year end: the Reserve-Based Lending ('RBL') facility available to several Group companies and the Norwegian Exploration Finance Facility ('EFF').

Reconciliation of opening and closing liabilities to cash flow movements:	2018 US\$m	2017 US\$m
Opening liability	29.8	-
Loans advanced recognised in the Cash Flow Statement		
RBL advances in the year	85.0	-
EFF advances in the year	32.4	29.2
	117.4	29.2
Loans repaid recognised in the Cash Flow Statement		
EFF repayments in the year	(31.2)	-
	(31.2)	-
Debt arrangement fees	(10.4)	-
Foreign exchange differences	(3.9)	0.6
Closing liabilities	101.7	29.8
Amounts due less than one year:		
Exploration Financing Facility	26.2	29.8
Amounts due greater than one year:		
Reserve-Based Lending facility	75.5	-
	101.7	29.8

Debt arrangement fees relate to both the RBL (US\$9.5m) and the EFF (US\$0.9m). Foreign exchange differences related entirely to the EFF.

RBL

The Group's RBL facility had cash drawings of US\$85.0m at 31 December 2018, all advanced in the year.

Cairn has signed an extension to its existing RBL facility with a syndicate of international banks. The extension became effective on 20 December 2018 and brought the Nova asset into the borrowing base. Interest on outstanding debt is charged at the appropriate LIBOR for the currency drawn plus an applicable margin. The facility remains subject to bi-annual redeterminations, has a market standard suite of covenants and is cross-guaranteed by all Group companies' party to the facility. Debt is repayable in line with the amortisation of bank commitments over the period from 1 July 2022 to the extended final maturity date of 31 December 2025.

Under IFRS 9, the extension of the facility to December 2025 constitutes substantially different terms from the original and as such the financial liability relating to the original facility was extinguished on the date of the extension and replaced with a new liability based on the revised terms. This resulted in the acceleration of the amortisation of borrowing costs relating to the previous facility, resulting in a charge of US\$15.1m to the Income Statement in the year.

Total commitments remain unchanged at US\$575.0m under the revised facility, but an accordion feature permits additional future commitments of up to US\$425.0m. The maximum available drawdown is currently forecast to be US\$478.0m during the life of the facility. The facility can also be used for general corporate purposes and may also be used to issue letters of credit and performance guarantees for the Group of up to US\$250.0m.

EFF

As at 31 December 2018, US\$27.1m (NOK 233.8m) was drawn under the Norwegian EFF. The maximum available amount is currently forecast to be US\$59.0m (NOK 446.3m). During the year, US\$32.4m was drawn under the facility and US\$31.2m repaid following receipt of the tax refund.

Cairn signed an extension to its existing EFF in December 2018. The extension became effective 31 December 2018 and increased total commitments to NOK 700.0m, with an accordion feature permitting additional future commitments of up to NOK 300.0m. The extension of this facility has no material impact on the results for the year.

Interest on outstanding debt is charged at the appropriate NIBOR plus an applicable margin. Debt is repayable by the final maturity date, which is now the earlier of 31 December 2022 or the date of receipt of the tax refund relating to exploration spend for 2021.

Details of guarantees granted under these facilities can be found in note 6.3.



## Section 3 – Financial Assets, Working Capital and Long-term Liabilities continued

### 3.4 Finance Lease Liability

#### Accounting policy

Finance lease liabilities are measured at inception and recorded on commencement of the asset being brought in to use. Measurement is based on the lower of fair value of the asset or the net present value of minimum lease commitments. Lease payments made in excess of the minimum commitment are charged direct to the Income Statement as variable lease costs.

Lease payments are allocated between capital and interest based on the rate implicit in the lease agreement. Where this is not practical to determine, the Group's incremental borrowing rate is used.

Where there are changes subsequent to initial recognition, adjustments are made to both the lease liability and the capitalised asset. The interest rate used where the rate implicit in the lease is not determinable is updated at the date of the remeasurement.

	Minimum lease payments		Present value of minimum lease payments	
	31 December 2018 US\$m	31 December 2017 US\$m	31 December 2018 US\$m	31 December 2017 US\$m
Not later than one year	18.9	16	18.5	15
After one year but no more than five years	88.7	88.5	76.9	77.2
After five years	100.6	130.5	70.0	91.0
<b>Total future minimum rentals payable</b>	<b>208.2</b>	<b>220.6</b>	<b>165.4</b>	<b>169.7</b>
Less future finance charges	(42.8)	(50.9)		
<b>Present value of minimum lease payments</b>	<b>165.4</b>	<b>169.7</b>		
<b>Reconciliation of opening and closing liability to cash flow movements:</b>				
			2018 US\$m	2017 US\$m
<b>Opening liability</b>			169.7	–
<b>Leases commenced and revisions to leases in the year:</b>				
Finance lease liability recognised on commencement			–	200.8
Revision to finance lease liability			(11.5)	(36.4)
			(11.5)	164.4
<b>Finance lease payments in the Cash Flow Statement:</b>				
Lease payments			(30.1)	(6.0)
Variable lease payments through cost of sales (note 2.1)			22.7	6.0
			(7.4)	–
<b>Finance lease reimbursements in the Cash Flow Statement:</b>				
Reimbursements received from lessor			4.7	14
<b>Other non-cash finance lease movements:</b>				
Reimbursement due transferred to other receivables			2.1	14
Finance lease interest (note 4.6)			7.8	2.5
			9.9	3.9
<b>Closing liability</b>			<b>165.4</b>	<b>169.7</b>

On 20 December 2013, the Group entered into a bareboat charter agreement with Armada Kraken PTE Limited (a subsidiary of Bumi Armada) for the lease of an FPSO vessel for the Kraken field. The lease agreement became effective on commencement. This agreement is considered to be a finance lease and commenced on the date of first oil production on 23 June 2017.

Subsequent to initial recognition, the lease agreement was amended to incorporate an interim production period, commencing in November 2017 and which concluded on commencement of a second amendment agreement in September 2018. During this interim period, minimum lease payments were reduced to nil, with all lease payments dependent upon the availability and performance of the FPSO. The second amendment agreement provided additional compensation to the joint venture partners for ongoing performance issues with the FPSO and also introduced a zero hire rate effective after 72 hours of a period of shutdown.

Amounts due to Cairn from the lessor of US\$3.0m (2017: US\$1.4m) have been offset by the lessor against outstanding invoices disputed by the operator. Cairn fully expects to recover this amount, and the receivable is recognised within other receivables.

### 3.5 Trade and Other Receivables

#### Accounting policy

Trade receivables represent amounts due from the sale of oil and gas from the Group's UK producing assets and royalty payments receivable from producing fields in Mongolia. Other receivables primarily represent recharges to joint operations. Joint operation receivables are receivables that relate to Cairn's interest in its oil and gas joint arrangements, including Cairn's participating interest share of the other receivables of the joint arrangements themselves.

Trade receivables, other receivables and joint operation receivables, which are financial assets, are measured initially at fair value and subsequently recorded at amortised cost.

A loss allowance is recognised, where material, for expected credit losses on all financial assets held at the balance sheet date. Expected credit losses are the difference between the contractual cash flows due to Cairn, and the discounted actual cash flows that are expected to be received. Where there has been no significant increase in credit risk since initial recognition, the loss allowance is equal to 12-month expected credit losses. Where the increase in credit risk is considered significant, lifetime credit losses are provided. For trade receivables a lifetime credit loss is recognised on initial recognition where material.

Prepayments, which are not financial assets, are measured at historic cost.

	31 December 2018 US\$m	31 December 2017 US\$m
Trade receivables	39.0	0.2
Other receivables	12.7	12.7
Accrued income – underlift (see note 2.1)	0.1	5.6
Prepayments	4.4	18.8
Joint operation receivables	35.0	45.8
	91.2	83.1

Trade receivables are measured at amortised cost. Revenue is recognised at the point in time where title passes to the customer and payment becomes unconditional.

Following the draw-down on the RBL facility in 2018, facility fees of US\$15.1m held in prepayments at 31 December 2017, were netted against the loan balance and then amortised over the useful life of the loan. See note 3.3.

US\$50.6m of dividends receivable from Cairn India Limited were accrued to 31 December 2016. In April 2017, on the merger of Cairn India Limited with Vedanta Limited, a further dividend of US\$52.4m was declared, which increased the total due to Cairn to US\$104.7m, after exchange adjustments. Post declaration of the April 2017 dividend, the IITD has seized the funds due to Cairn from Vedanta Limited in part-settlement of the assessment order issued relating to the disputed retrospective tax demand. See note 5.5. Consequently a loss allowance was recognised in 2017 against the dividends receivable. No further dividend income due to Cairn, but seized by the IITD, has since been recognised. As at 31 December 2018, following the declaration of further dividends, the total of dividends receivable by Cairn, seized by the IITD is US\$164.2m.

Where material Cairn has assessed the recoverability of trade and other receivables and no further loss allowance is recognised for expected credit losses on all financial assets held at the balance sheet date.

	2018 US\$m	2017 US\$m
<b>Reconciliation of opening and closing receivables to cash flow movements:</b>		
Opening trade and other receivables	83.1	113.7
Closing trade and other receivables	(91.2)	(83.1)
(Increase)/Decrease in trade and other receivables	(8.1)	30.6
Movements in joint operation receivables relating to investing activities	(20.8)	11.3
Movements in prepayments and other receivables relating to other non-operating activities	(12.4)	(53.9)
Foreign exchange	(0.3)	1.5
<b>Trade and other receivables movement recorded in operating cash flows</b>	<b>(41.6)</b>	<b>(10.5)</b>

The movements in joint operation receivables relating to investing activities, relate to the Group's share of the receivables of joint operations in respect of exploration, appraisal and development activities. Movements relating to production activities are included in amounts through operating cash flows.

Other non-operating cash flow movements for 2018 primarily relate to the release of prepaid facility fees. The 2017 non-cash movement mainly relates to the loss allowance recognised on the dividends receivable from Vedanta Limited.

The increase in trade and other receivables movements through operating cash flows primarily reflects the increase in trade receivables held at the year end.

## Section 3 – Financial Assets, Working Capital and Long-term Liabilities continued

### 3.6 Derivative Financial Instruments

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Non-current assets</b>		
Financial assets – hedge options maturing after one year	7.7	–
<b>Current assets</b>		
Financial assets – hedge options maturing within one year	36.7	–
<b>Current liabilities</b>		
Financial liabilities – hedge options maturing within one year	–	(14)
	<b>44.4</b>	<b>(14)</b>

Cairn currently has an active commodity price hedging programme in place to protect debt capacity and support committed capital programmes. Mark-to-market gains on oil price hedge options are recorded as financial assets at 31 December 2018.

At 31 December 2018 the Group had hedged ~2.7m barrels of 2019 Kraken and Catcher oil production, using collar structures. The weighted average floor and ceiling prices are US\$67.07/bbl and US\$83.08/bbl respectively (all prices quoted relate to dated Brent). In addition, at 31 December 2018, the Group had hedged ~500,000 barrels of 2020 oil production using a collar with floor and ceiling prices of US\$67.50/bbl and US\$87.50/bbl respectively. Further hedging of 2020 production has continued post the balance sheet date.

The collar structures have been designated as hedges for hedge accounting. Hedge effectiveness is assessed at commencement of the option and prospectively thereafter. At the year end, the closing Brent oil price was US\$50.70/bbl, below the floor price of all collars entered into. Fair value movements on the cost of the option are recorded in the Statement of Comprehensive Income in the year, with fair value gains of US\$43.9m being offset by a loss of US\$78m (2017: nil) on options that matured in the year (2017 restated: fair value loss of US\$2.9m). The loss on matured options is recycled to the Income Statement.

<b>Effects of hedge accounting on financial position and loss for the year</b>	31 December 2018	31 December 2017 (restated)
Volume of oil production hedged	3.2mmbbls	1.4mmbbls
Weighted average floor price of options	US\$67.14	US\$57.30
Weighted average ceiling price of options	US\$83.81	US\$67.50
	<b>January 2019 – March 2020</b>	<b>January 2018 – December 2018</b>
	<b>US\$m</b>	<b>US\$m</b>
Financial assets	44.4	–
Financial liabilities	–	(14)
Hedging gains/(loss) recorded in Other Comprehensive Income	36.1	(2.9)
Hedging loss recycled to Income Statement	7.8	–
Hedging loss recorded in Income Statement against revenue (note 2.1)	(7.8)	–

Sensitivity analysis has been performed on equity movements that would arise from changes in the year end oil price forward curve and the resulting impact on the fair value of open hedge options at the year end. The sensitivity analysis considers only the impact on line items directly relating to hedge accounting (being financial assets and fair value gains through Other Comprehensive Income) and not the impact of the change of other balance sheet items where valuation is based on the year end oil price, such as inventory.

	Increase/ (decrease) in equity US\$m
<b>Change in year end oil price forward curve</b>	
Decrease of 10%	15.3
Decrease of 20%	31.5
Increase of 10%	(13.5)
Increase of 20%	(25.4)

3.7 Trade and Other Payables

Accounting policy

Trade payables and other creditors are non-interest bearing and are measured at fair value initially then amortised cost subsequently.

Joint operation payables are payables that relate to Cairn's interest in its oil and gas joint arrangements, including Cairn's participating interest share of the trade and other payables of the joint arrangements themselves. Where Cairn is operator of the joint operation, joint operation payables also include amounts that Cairn will settle to third parties on behalf of joint operation partners. The amount to be recovered from partners for their share of such liabilities are included within joint operation receivables.

	31 December 2018 US\$m	31 December 2017 US\$m
Trade payables	9.7	6.9
Other taxation and social security	1.4	2.5
Accruals and other payables	30.9	22.6
Joint operation payables	61.1	165.8
	103.1	197.8

Joint operation payables include US\$16.4m (2017: US\$68.8m), US\$24.3m (2017: US\$82.8m) and US\$20.4m (2017: US\$14.2m) relating to exploration/appraisal assets, development/producing assets and production costs respectively. The reduction in payables for exploration/appraisal assets includes the release of accruals relating to Western Sahara of US\$15.4m (see note 2.2) and US\$34.1m settlement of liabilities relating to Senegal following the 2017 drilling campaign. Joint operation payables on development/producing assets have reduced reflecting the completion of development activities on Kraken and Catcher and includes the release of rig accruals of US\$23.3m.

	2018 US\$m	2017 US\$m
Reconciliation of opening and closing payables to cash flow movements:		
Opening trade and other payables	(197.8)	(123.0)
Closing trade and other payables	103.1	197.8
(Decrease)/Increase in trade and other payables	(94.7)	74.8
Movement in joint operation payables relating to investing activities	111.7	(67.1)
Movement in trade payables relating to investing activities	4.3	16
Movements in accruals and other payables relating to non-operating activities	(0.9)	12
Foreign exchange	2.3	(8.0)
Trade and other payables movement recorded in operating cash flows	22.7	2.5

Movements above for investing activities relate to exploration, appraisal and development activities through the Group's joint operations. Movements relating to production activities are included in amounts through operating cash flows.

The movement in trade and other payables recorded in the Cash Flow Statement through operating cash flows primarily arise on production activities in the UK North Sea.



## Section 3 – Financial Assets, Working Capital and Long-term Liabilities continued

### 3.8 Deferred Revenue

#### Accounting policy

Deferred revenue, arising from a streaming agreement, is treated as cash received in advance of future oil sales. Revenue is recorded at the fair value of the consideration received and is amortised to the Income Statement on a unit-of-production basis, based on expected future volumes to which the stream provider is entitled.

FlowStream deferred revenue	Note	2018 US\$m	2017 US\$m
Opening deferred revenue		74.0	–
Fair value of proceeds received		–	74.6
Released during the year	21	(21.2)	(3.0)
Foreign exchange differences		–	2.4
Closing deferred revenue		52.8	74.0
Amounts expected to be released within one year		22.0	24.3
Amounts expected to be released after one year		30.8	49.7
		52.8	74.0

Deferred revenue of US\$52.8m relates to the stream agreement with FlowStream. Under the initial stream agreement, Cairn received US\$74.6m in June 2017 with FlowStream receiving 4.5% of future Kraken production. FlowStream's entitlement to Kraken production reduces to 1.35% after FlowStream achieves a 10% return and would further reduce to 0.675% if FlowStream achieves a 15% return.

### 3.9 Financial Instruments

Set out below is the comparison by category of carrying amounts and fair values of all the Group's financial instruments that are carried in the Financial Statements.

#### Financial assets

Carrying amount and fair value	31 December 2018 US\$m	31 December 2017 US\$m
<i>Financial assets at amortised cost</i>		
Cash and cash equivalents	66.3	86.5
Trade receivables	39.0	0.2
Other receivables	12.7	12.7
Joint operation receivables	35.0	45.8
Accrued underlift	0.1	5.6
<i>Financial assets at fair value through profit or loss</i>		
Listed equity and preference shares	6.9	1,072.2
<i>Derivative financial instruments</i>		
Financial assets – hedge options	44.4	–
	204.4	1,223.0

Due to the short-term nature of financial assets held at amortised cost, their carrying amount is considered to be the same as the fair value.

The Group fully impaired US\$972m of dividends receivable from Vedanta Limited which were recognised up to April 2017 – see note 3.5. There are no other material impairments of financial assets.

All the Group's financial assets are expected to mature within one year other than hedge options which extend into 2020. See note 3.6.

**3.9 Financial Instruments** continued**Financial liabilities**

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Carrying amount and fair value</b>		
<i>Financial liabilities at amortised cost</i>		
Trade payables	9.7	6.9
Joint operation payables	61.1	165.8
Accruals and other payables	30.9	22.6
Loans and borrowings	101.7	29.8
<i>Derivative financial instruments</i>		
Financial liabilities – hedge options	–	14
	<b>203.4</b>	<b>226.5</b>

The fair value of financial assets and liabilities, other than the listed equity shares and hedge options, has been calculated by discounting the expected future cash flows at prevailing interest rates.

**Maturity analysis**

The expected financial maturity of the Group's financial liabilities at 31 December 2018 is as follows:

	<1 year US\$m	1-2 years US\$m	2-5 years US\$m	>5 years US\$m
<i>Financial liabilities at amortised cost</i>				
Trade payables	9.7	–	–	–
Joint operation payables	61.1	–	–	–
Accruals and other payables	30.9	–	–	–
Loans and borrowings	26.2	–	–	75.5
	<b>127.9</b>	<b>–</b>	<b>–</b>	<b>75.5</b>

As at 31 December 2017, all the Group's financial liabilities were expected to mature within one year.

**Fair value**

Cairn holds listed equity shares as a financial asset at fair value through profit or loss. The Group determines and discloses the fair value of these by reference to the quoted (unadjusted) prices in active markets for those shares at the measurement date. The equity shares and redeemable preference shares were previously recorded as available for sale financial assets. The measurement of the assets remains unchanged.

The Group also holds hedge options which are held at fair value determined by models which have observable inputs.

The Group held the following financial instruments measured at fair value:

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Assets measured at fair value – Level 1</b>		
<i>Financial assets at fair value through profit or loss</i>		
Equity shares – listed	6.9	951.5
Redeemable preference shares – listed	–	120.7
<b>Assets measured at fair value – Level 2</b>		
<i>Derivative financial instruments</i>		
Financial assets – hedge options	44.4	–
<b>Liabilities measured at fair value – Level 2</b>		
<i>Derivative financial instruments</i>		
Financial liabilities – hedge options	–	(1.4)
	<b>51.3</b>	<b>1,070.8</b>

## Section 3 – Financial Assets, Working Capital and Long-term Liabilities continued

### 3.10 Financial Risk Management: Objectives and Policies

The main risks arising from the Group's financial instruments are commodity price risk, liquidity risk, credit risk and foreign currency risk. The Board of Cairn Energy PLC, through the Treasury Sub-Committee, reviews and agrees policies for managing each of these risks and these are summarised below.

The Group's Treasury function and Executive Team as appropriate are responsible for managing these risks, in accordance with the policies set by the Board. Management of these risks is carried out by monitoring of cash flows, investment and funding requirements using a variety of techniques. These potential exposures are managed whilst ensuring that the Company and the Group have adequate liquidity at all times in order to meet their immediate cash requirements. There are no significant concentrations of risks unless otherwise stated. The Group does not enter into or trade financial instruments, including derivatives, for speculative purposes.

The primary financial assets and liabilities comprise cash, short and medium-term deposits, notice accounts, tri-party purchase transactions ('repos'), certificates of deposit, money market liquidity funds, listed equity shares, intra-group loans and other receivables and financial liabilities held at amortised cost. The Group's strategy has been to finance its operations through a mixture of retained profits, bank borrowings and other production related streaming agreements. Other alternatives such as equity issues and other forms of non-investment-grade debt finance are reviewed by the Board, when appropriate.

#### Commodity price risk

Commodity price risk arises principally from the Group's North Sea production, which could adversely affect revenue and debt availability due to changes in commodity prices.

The Group measures commodity price risk through an analysis of the potential impact of changing commodity prices. Based on this analysis and considering materiality and the potential business impact, the Group may choose to hedge.

Linked to production in the UK North Sea, the Group continued to hedge during 2018 in order to protect debt capacity and support committed capital programmes. Details of current hedging arrangements, together with oil price sensitivity analysis, can be found in note 3.6.

Transacted derivatives are designated, where possible, in cash flow hedge relationships to minimise accounting income statement volatility. The Group is required to assess the likely effectiveness of any proposed cash flow hedging relationship and demonstrate that the hedging relationship is expected to be highly effective prior to entering into a hedging instrument and at subsequent reporting dates.

#### Liquidity risk

The Group closely monitors and manages its liquidity risk using both short and long-term cash flow projections, supplemented by debt and equity financing plans and active portfolio management. Cash forecasts are regularly produced and sensitivities run for different scenarios including, but not limited to, changes in asset production profiles and cost schedules. The Group's forecasts show that the Group will be able to operate within its current debt facilities and have financial headroom for the 12 months from the date of approval of the 2018 Annual Report and Accounts.

Details of the Group's debt facilities can be found in note 3.3. The Group is subject to quarterly forecast liquidity tests as part of the RBL facility agreement. The Group has complied with the liquidity requirements of this test at all times during the year. The Group runs various sensitivities on its liquidity position on a quarterly basis throughout the year. Further details are noted in the Viability Statement provided on page 33.

The Group invests cash in a combination of money market liquidity funds, repos, notice accounts and term deposits with a number of international and UK financial institutions, ensuring sufficient liquidity to enable the Group to meet its short and medium-term expenditure requirements.

#### Credit risk

Credit risk arises from cash and cash equivalents, investments with banks and financial institutions, trade receivables and joint operation receivables.

Customers and joint operation partners are subject to a risk assessment using publicly available information and credit reference agencies, with follow-up due diligence and monitoring if required.

Investment credit risk for investments with banks and other financial institutions is managed by the Group Treasury function in accordance with the Board-approved policies of Cairn Energy PLC. These policies limit counterparty exposure, maturity, collateral and take account of published ratings, market measures and other market information. The limits are set to minimise the concentration of risks and therefore mitigate the risk of financial loss through counterparty failure.

Where investments are made in repos, collateral is fixed income debt securities with a minimum rating of BBB- which is managed by Euroclear. No adjustment is made to the counterparty credit rating to reflect the collateral held when assessing investment options.

It is Cairn's policy to invest with banks or other financial institutions that firstly offer the greatest degree of security in the view of the Group and, secondly the most competitive interest rates. Repayment of principal is the overriding priority and this is achieved by diversification and shorter maturities to provide flexibility. The Board continually re-assesses the Group's policy and updates as required.

At the year end the Group does not have any significant concentrations of bad debt risk. As at 31 December 2018 the Group had investments with 7 counterparties (2017: 9) to ensure no concentration of counterparty investment risk. The reduction in the number of counterparties holding investments reflects the Group's reduced cash balance. At 31 December 2018 all of these investments were instant access. At 31 December 2017 the investments ranged from instant access to one month.

The maximum credit risk exposure relating to financial assets is represented by the carrying value as at the balance sheet date.

3.10 Financial Risk Management: Objectives and Policies continued

Foreign currency risk

Cairn manages exposures that arise from non-functional currency receipts and payments by matching receipts and payments in the same currency and actively managing the residual net position.

The Group also aims where possible to hold surplus cash, debt and working capital balances in the functional currency of the subsidiary, thereby matching the reporting currency and functional currency of most companies in the Group. This minimises the impact of foreign exchange movements on the Group's Balance Sheet.

Where residual net exposures do exist and they are considered significant, the Company and Group may from time to time opt to use derivative financial instruments to minimise exposure to fluctuations in foreign exchange and interest rates.

The following table demonstrates the sensitivity to movements in the US\$:GBP and US\$:NOK exchange rates, with all other variables held constant, on the Group's monetary assets and liabilities. These are considered to be reasonably possible changes for the purposes of sensitivity analysis. The Group's exposure to foreign currency changes for all other currencies is not material.

	2018		2017	
	Effect on loss before tax US\$m	Effect on equity US\$m	Effect on loss before tax US\$m	Effect on equity US\$m
10% increase in GBP to US\$	(55.1)	(14.2)	(45.2)	105.4
10% decrease in GBP to US\$	55.1	14.2	(5.0)	(105.4)
10% increase in NOK to US\$	0.1	13.2	–	15.3
10% decrease in NOK to US\$	(0.1)	(13.2)	–	(15.3)

The reduced sensitivity to changes in the US\$:GBP exchange rate on equity in 2018 is due to the change in functional currency of Nautical Petroleum Limited from GBP to US\$, which took place on 1 January 2018. The effect on the loss before tax is due to inter-group loans between subsidiaries with differing functional currencies.



## Section 4 – Income Statement Analysis

This section contains further Income Statement analysis, including details of employee benefits payable in the year and finance income and costs.

### Significant accounting judgements in this section:

There are no significant accounting judgements in this section.

### Key estimates and assumptions in this section:

There are several key estimates and assumptions used in the calculation of the Group's share-based payment charges. These are detailed in note 4.4 (b).

## 4.1 Segmental Analysis

### Operating segments

Cairn's strategy is to create, add and realise value from a balanced portfolio within a self-funding business model.

Each business unit is headed by a regional director (a regional director may be responsible for more than one business unit) and the Board monitors the results of each segment separately for the purposes of making decisions about resource allocation and performance assessment.

Having completed the exploration and appraisal phase, the Senegal business is now geared towards development. The Final Investment Decision is expected to be approved by the Government during 2019, with first oil forecast in 2022. The UK & Norway business unit includes exploration activities in the North Sea, Norwegian Sea and Barents Sea and management of the Group's development and producing assets in the UK and Norwegian North Sea. The International business unit consists of all other regions where Cairn currently holds (or held during the year) exploration licences or conducted new venture activities, including Mexico, Ireland, South and Central America and West Africa.

The Other Cairn Energy Group segment exists to accumulate the activities and results of the Parent and other holding companies together with other unallocated expenditure and net assets/liabilities including amounts of a corporate nature not specifically attributable to any of the business units.

Non-current assets as analysed on a segmental basis consist of: intangible exploration/appraisal assets; property, plant & equipment – development/producing assets; intangible assets – goodwill; and other property, plant & equipment and intangible assets.

Geographical information: non-current assets	2018 US\$m	2017 US\$m
<b>Senegal</b>	<b>463.0</b>	434.5
UK	941.9	1,236.3
Norway	160.3	134.9
Goodwill (allocated to segment)	125.8	128.2
<b>UK &amp; Norway</b>	<b>1,228.0</b>	1,499.4
Ireland	14.8	9.7
Mexico	31.0	13.1
Mauritania	7.4	–
Suriname	1.7	–
<b>International</b>	<b>54.9</b>	22.8
<b>Other UK</b>	<b>5.8</b>	8.2
<b>Total non-current assets</b>	<b>1,751.7</b>	1,964.9

**4.1 Segmental Analysis** continued**Operating segments** continued

The segment results for the year ended 31 December 2018 are as follows:

	Senegal US\$m	UK & Norway US\$m	International US\$m	Other Cairn Energy Group US\$m	Group adjustment for segments US\$m	Total US\$m
<b>Revenue</b>	–	<b>409.1</b>	–	<b>1.2</b>	–	<b>410.3</b>
Cost of sales	–	(131.4)	–	–	–	<b>(131.4)</b>
Depletion and amortisation	–	(171.2)	–	–	–	<b>(171.2)</b>
<b>Gross profit</b>	–	<b>106.5</b>	–	<b>1.2</b>	–	<b>107.7</b>
Pre-award costs	–	(6.8)	(11.4)	(7.2)	–	<b>(25.4)</b>
Unsuccessful exploration costs	–	(62.6)	14.4	–	–	<b>(48.2)</b>
Loss on disposal of intangible exploration/ appraisal assets	–	(4.5)	–	–	–	<b>(4.5)</b>
Other operating income	–	–	5.0	–	–	<b>5.0</b>
Depreciation	–	(0.4)	–	(0.6)	–	<b>(1.0)</b>
Amortisation of other intangible assets	–	(0.4)	–	(2.3)	–	<b>(2.7)</b>
Other administrative expenses	–	(1.7)	(0.6)	(44.4)	–	<b>(46.7)</b>
Impairment of property, plant and equipment – development/producing assets	–	(166.3)	–	–	–	<b>(166.3)</b>
<b>Operating (loss)/profit</b>	–	<b>(136.2)</b>	<b>7.4</b>	<b>(53.3)</b>	–	<b>(182.1)</b>
Loss on derecognition of financial assets	–	–	–	(713.1)	–	<b>(713.1)</b>
Loss on fair value of financial assets	–	–	–	(352.2)	–	<b>(352.2)</b>
Interest income	0.1	0.1	–	15	–	<b>1.7</b>
Other finance income and costs	–	(21.9)	–	16	–	<b>(20.3)</b>
<b>Profit/(Loss) before taxation</b>	<b>0.1</b>	<b>(158.0)</b>	<b>7.4</b>	<b>(1,115.5)</b>	–	<b>(1,266.0)</b>
Tax credit	–	411	–	89.4	–	<b>130.5</b>
<b>Profit/(Loss) for the year</b>	<b>0.1</b>	<b>(116.9)</b>	<b>7.4</b>	<b>(1,026.1)</b>	–	<b>(1,135.5)</b>
<b>Capital expenditure</b>	<b>28.5</b>	<b>147.7</b>	<b>17.7</b>	<b>0.9</b>	–	<b>194.8</b>
<b>Total assets</b>	<b>470.5</b>	<b>1,532.7</b>	<b>82.4</b>	<b>82.2</b>	<b>(166.3)</b>	<b>2,001.5</b>
<b>Total liabilities</b>	<b>16.9</b>	<b>585.6</b>	<b>4.6</b>	<b>170.6</b>	<b>(166.3)</b>	<b>611.4</b>
<b>Non-current assets</b>	<b>463.0</b>	<b>1,228.0</b>	<b>54.9</b>	<b>5.8</b>	–	<b>1,751.7</b>

All revenue in the UK & Norway segment is attributable to the sale of oil and gas in the UK. 48.7% of the Group's sales of oil and gas are to a single customer that markets the crude on Cairn's behalf and delivers it to the ultimate buyers.

Cairn has a cash pooling arrangement which is used to offset overdrafts in some subsidiaries with cash balances in other subsidiaries. For segmental disclosure, the overdraft in each segment is shown as a liability and the offset is shown in the Group adjustment column.

All transactions between the segments are carried out on an arm's length basis, other than where inter-group loans are made interest-free or at interest rates below market value.

## Section 4 – Income Statement Analysis continued

### 4.1 Segmental Analysis continued

The segment results for the year ended 31 December 2017 after restatement (see note 1.3) were as follows:

	Senegal US\$m	UK & Norway US\$m	International US\$m	Other Cairn Energy Group US\$m	Group adjustment for segments US\$m	Total US\$m
Revenue	–	22.9	10.4	–	–	33.3
Cost of sales	–	(5.9)	–	–	–	(5.9)
Depletion and amortisation	–	(20.8)	–	–	–	(20.8)
Gross (loss)/profit	–	(3.8)	10.4	–	–	6.6
Pre-award costs	–	(30.2)	(8.5)	(5.1)	–	(43.8)
Unsuccessful exploration costs	–	(8.1)	(52.6)	–	–	(60.7)
Depreciation	–	(0.6)	–	(0.5)	–	(1.1)
Amortisation of other intangible assets	–	–	–	(1.5)	–	(1.5)
Other operating income	–	–	–	2.4	–	2.4
Administrative expenses	–	(2.2)	0.3	(28.2)	–	(30.1)
Reversal of impairment of oil and gas assets	–	23.0	–	–	–	23.0
Operating loss	–	(21.9)	(50.4)	(32.9)	–	(105.2)
Loss on derecognition of financial assets	–	–	–	(33.0)	–	(33.0)
Gain on fair value of financial assets	–	–	–	449.1	–	449.1
Interest income	0.1	0.6	–	3.2	–	3.9
Other finance income and costs	(0.7)	0.7	–	62.7	–	62.7
Exceptional provision against finance income receivable	–	–	–	(104.7)	–	(104.7)
(Loss)/Profit before taxation	(0.6)	(20.6)	(50.4)	344.4	–	272.8
Tax credit	–	34.4	–	(89.4)	–	(55.0)
(Loss)/Profit for the year	(0.6)	13.8	(50.4)	255.0	–	217.8
Capital expenditure	104.2	416.8	63.1	8.6	–	592.7
Total assets	463.3	1,674.2	40.3	1,145.4	(67.7)	3,255.5
Total liabilities	34.6	592.4	26.5	175.2	(67.7)	761.0
Non-current assets	434.5	1,499.4	22.8	8.2	–	1,964.9

All revenue in the UK & Norway segment was attributable to the sale of oil and gas in the UK. 100% of the Group's sales of oil and gas were to a single customer that marketed the crude on Cairn's behalf and delivered it to the ultimate buyers.

Revenue in the international segment related to royalty interests receivable from producing fields in Mongolia.

### 4.2 Pre-Award Costs

	2018 US\$m	2017 US\$m
UK & Norway	6.8	30.2
International	11.4	8.5
Other	7.2	5.1
	25.4	43.8

Pre-award costs represent time costs, legal fees and other direct charges incurred in pursuit of new opportunities in regions which complement the Group's current licence interests and risk appetite.

2017 pre-award costs in the UK & Norway segment included US\$23.2m costs for purchase of seismic data, mostly in the Barents Sea. The 2017 International segment costs included US\$5.0m relating to Mexico.

**4.3 Administrative Expenses**

	2018 US\$m	2017 US\$m
Administrative expenses – recurring departmental expenses and corporate projects	27.5	24.6
Administrative expenses – Indian tax arbitration costs (see note 5.5)	22.9	8.1
	50.4	32.7

**Operating lease commitments**

Administration costs include operating lease charges for land and buildings representing the costs of Cairn's head office in Edinburgh and subsidiary offices globally. Operating lease commitments at the year end shown below are disclosed prior to recovery of costs through the Group's timewriting recharges.

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Administrative costs – land and buildings</b>		
Not later than one year	2.9	1.8
After one year but no more than five years	8.6	5.5
After five years	–	2.0
	11.5	9.3

**4.4 Employee Benefits: Staff Costs, Share-Based Payments and Directors' Emoluments****(a) Staff costs**

	2018 US\$m	2017 US\$m
Wages and salaries	35.9	32.1
Social security costs	3.5	5.5
Other pension costs	2.2	2.1
Share-based payments charge	14.7	17.5
	56.3	57.2

Staff costs are shown gross before amounts recharged to joint operations. The share-based payments charge represents amounts in respect of equity-settled options.

The monthly average number of full-time equivalent employees, including Executive Directors and individuals employed by the Group working on joint operations, was:

	Number of employees	
	2018	2017
UK	148	139
Norway	32	26
Mexico	3	–
Senegal	5	5
Morocco	–	1
Group	188	171

**(b) Share-based payments****Income Statement charge**

	2018 US\$m	2017 US\$m
<b>Included within gross staff costs:</b>		
SIP	0.7	0.7
Share Options – Unapproved Plan	0.1	0.4
LTIP	11.7	11.5
Employee Share Scheme	2.2	4.9
	14.7	17.5



## Section 4 – Income Statement Analysis continued

### 4.4 Employee Benefits: Staff Costs, Share-Based Payments and Directors' Emoluments continued

#### (b) Share-based payments continued

Details of those awards with a significant impact on the results for the current and prior year are given below together with a summary of the remaining awards.

#### Share-based payment schemes and awards details

The Group operates a number of share award schemes for the benefit of its employees.

The number of share awards made by the Company during the year is given in the table below together with their weighted average fair value ('WAFV') and weighted average grant or exercise price ('WAGP/WAEP'):

	2018 WAFV £	2018 WAGP/ WAEP £	2018 Number of shares	2017 WAFV £	2017 WAGP/ WAEP £	2017 Number of shares
SIP – free shares	2.16	2.16	251,415	2.10	2.10	242,097
SIP – matching shares	2.23	2.23	183,664	1.96	1.96	206,638
LTIP	0.98	2.11	7,828,845	1.09	2.17	7,231,230
Employee Share Scheme	1.26	2.09	1,131,222	1.81	2.08	2,682,204
			9,395,146			10,362,169

The awards existing under the LTIP with the weighted average grant price ('WAGP') are as follows:

	2018		2017	
	Number	WAGP £	Number	WAGP £
Outstanding at 1 January	28,567,535	1.95	27,071,190	1.89
Granted during the year	7,828,845	2.11	7,231,230	2.17
Exercised during the year	(5,005,033)	1.82	(4,336,496)	1.98
Lapsed during the year	(4,054,501)	1.88	(1,398,389)	1.81
<b>Outstanding at 31 December</b>	<b>27,336,846</b>	<b>2.03</b>	<b>28,567,535</b>	<b>1.95</b>

Weighted average remaining contractual life of outstanding awards **1.0 years** 1.0 years

The awards existing under all share schemes other than the LTIP with the weighted average of the grant price, exercise price and notional exercise prices ('WAGP/WAEP') are as follows:

	2018		2017	
	Number	WAGP/WAEP £	Number	WAGP/WAEP £
Outstanding at 1 January	9,550,872	1.99	12,703,723	1.84
Granted during the year	1,566,301	2.12	3,130,939	2.07
Exercised during the year	(1,270,878)	1.96	(745,665)	2.03
Lapsed during the year	(251,097)	2.85	(5,538,125)	1.69
<b>Outstanding at 31 December</b>	<b>9,595,198</b>	<b>1.99</b>	<b>9,550,872</b>	<b>1.99</b>

Weighted average remaining contractual life of outstanding awards **7.3 years** 7.9 years

#### Assumptions and inputs

The fair value of the Cairn Energy PLC LTIP scheme awards was calculated using a Monte Carlo model. The primary inputs to the model are consistent with those of the other share award schemes, though vesting percentages for LTIPs can be above 100%. For details on the vesting conditions attached to the LTIPs refer to the Directors' Remuneration Report on page 107.

The other Cairn Energy PLC share awards during 2018 were also valued using a Monte Carlo model. Awards in prior years were valued similarly. Cairn Energy PLC share options were exercised on a regular basis throughout the year, subject to the normal employee dealing bans imposed by the Company at certain times. The weighted average share price during the year was £2.14 (2017: £2.01).

The main inputs to the models include the number of options, share price, leaver rate, trigger points, discount rate and volatility.

- Leaver rate assumptions are based on past history of employees leaving the Company prior to options vesting and are revised to equal the number of options that ultimately vest.
- Trigger points are based on the length of time after the vesting periods for awards in 2018, further details are below.
- The risk-free rate is based on the yield on a zero-coupon government bond with a term equal to the expected term on the option being valued.
- Volatility was determined as the annualised standard deviation of the continuously compounded rates of return on the shares of a peer group of similar companies selected from the FTSE, as disclosed in the Directors' Remuneration Report on page 109, over a 3-year period to the date of award.

4.4 Employee Benefits: Staff Costs, Share-Based Payments and Directors' Emoluments continued  
(b) Share-based payments continued

The following assumptions and inputs apply:

Scheme name	Volatility	Risk-free rate per annum	Lapse due to withdrawals per annum
SIP	0% – 29%	0% – 120%	0% – 5%
Approved and Unapproved Plans	29%	0.78% – 154%	5%
LTIP	29% – 37%	0.25% – 141%	0%
Employee Share Scheme	0% – 37%	0% – 130%	5%

Employee exercise trigger point assumptions

For 2018 awards, the assumption used for the Employee Share Scheme and the majority of the LTIP awards is that employees will exercise 35% in the year following the three-year anniversary of the award, and the same in the subsequent year, then 10% in each of the three subsequent years. The LTIP awards exercise assumption for Directors and more senior employees is that awards shall be exercised 50% at the end of the two-year holding period, being the five-year anniversary date, and the remaining 50% on the six-year anniversary date.

(c) Directors' emoluments and remuneration of key management personnel

Details of each Director's remuneration, pension entitlements, share options and awards pursuant to the LTIP are set out in the Directors' Remuneration Report on pages 87 to 113. Directors' remuneration, their pension entitlements and any share awards vested during the year are provided in aggregate in note 7.9.

Remuneration of key management personnel

The remuneration of the Directors of the Company and of the members of the management and corporate teams who are the key management personnel of the Group is set out below in aggregate.

	2018 US\$m	2017 US\$m
Short-term employee benefits	6.9	6.3
Post-employment benefits	0.4	0.4
Share-based payments	4.0	3.7
	11.3	10.4

In addition employer's national insurance contributions for key management personnel in respect of short-term employee benefits were US\$0.9m (2017: US\$0.9m).

Share-based payments shown above represent the cost to the Group of key management personnel's participation in the Company's share schemes, measured under IFRS 2.

During 2018, 1,460,908 shares awarded to key management personnel vested under the LTIP (2017: 2,526,328).

4.5 Finance Income

	2018 US\$m	2017 US\$m
Bank and other interest receivable	1.7	3.9
Other finance income	–	8.1
Dividend income	–	52.4
Gain on mark-to-market financial instruments	0.3	–
Exchange gain	17.2	12.6
	19.2	77.0

## Section 4 – Income Statement Analysis continued

### 4.6 Finance Costs

	2018 US\$m	2017 (restated) US\$m
Loan interest and facility fee amortisation	24.4	0.6
Other finance charges	3.3	4.8
Loss on mark-to-market financial instruments	–	0.3
Unwinding of discount – provisions	2.3	2.2
Finance lease interest	7.8	2.5
	37.8	10.4

Loan interest and facility fee amortisation includes US\$15.1m of facility fees relating to the RBL facilities, which are amortised over the expected useful life of each facility. Following the extension to the facility (see note 3.3) all costs of the initial facility have been amortised in the year.

### 4.7 Earnings per Ordinary Share

Basic and diluted earnings per share are calculated using the following measures of (loss)/profit:

	2018 US\$m	2017 (restated) US\$m
<b>(Loss)/Profit and diluted (loss)/profit attributable to equity holders of the Parent</b>	<b>(1,135.5)</b>	217.8

Refer to note 1.3 concerning the restatement of comparatives on adoption of IFRS 9.

The following reflects the share data used in the basic and diluted earnings per share computations:

	2018 '000	2017 '000
Weighted average number of shares	588,032	582,134
Less weighted average shares held by ESOP and SIP Trusts	(7,502)	(4,933)
<b>Basic weighted average number of shares</b>	<b>580,530</b>	577,201
Potential dilutive effect of shares issuable under employee share plans:		
LTIP awards	–	11,027
Approved and unapproved plans	–	346
Employee share awards	–	2,442
<b>Diluted weighted average number of shares</b>	<b>580,530</b>	591,016
Potentially issuable shares not included above:		
LTIP awards	27,337	16,665
Approved and unapproved plans	3,341	169
Employee share awards	4,174	842
<b>Number of potentially issuable shares</b>	<b>34,852*</b>	17,676

\* 2018 potentially issuable shares were all anti-dilutive due to the loss for the year.

## Section 5 – Taxation

This section highlights the Group's taxation policies, including both the accounting policy and wider strategy and governance policies. Analysis is provided of the Group's Income Statement tax charges and credits and deferred tax movements through the Balance Sheet.

This section also includes details of the contingent liability relating to the Indian Tax dispute where final international arbitration proceedings were held during the year.

**Significant accounting judgements in this section:**

**Deferred taxation**

At each reporting date, Cairn reviews unused tax losses and allowances to assess whether it is probable that taxable profits will be available against which the Group can utilise these losses and allowances and whether or not a deferred tax asset should be recognised.

At 31 December 2017 and 2018, Cairn concluded that no deferred tax asset should be recognised.

**Contingent liability – Indian tax**

Cairn continue to resolutely defend the Group's position in India following the tax assessment order and demand notice issued by the Indian Income Tax Department. Final hearings in the international arbitration proceedings were held in 2018 with the award of the arbitration panel expected in 2019. Cairn remains confident that the Group will be successful in the arbitration and therefore no provision is made in the Financial Statements for any amount demanded by the Indian Income Tax Department. Full details on the contingent liability are given in note 5.5.

**Key estimates and assumptions in this section:**

Future taxable profits used in determining whether it is appropriate to recognise a deferred tax asset are based on the key assumptions used in impairment testing, detailed in section 2. Downside sensitivities are used to determine the extent to which future taxable profits are probable.

**Accounting policy**

The total tax charge or credit represents the sum of current tax and deferred tax.

The current tax credit is based on the taxable loss for the year. Taxable profit or loss differs from net profit or loss as reported in the Income Statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. In Norway, tax refunds may be claimed on qualifying exploration activities and related overhead costs; the tax refundable is included as a tax credit in the period in which the qualifying expenditure is incurred. Where there are uncertain tax positions, Cairn assess whether it is probable that the position adopted in tax filings will be accepted by the relevant tax authority, with the results of this assessment determining the accounting that follows.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the Financial Statements and the corresponding tax bases used in the computation of taxable profit or loss.

Deferred tax assets are recognised for deductible temporary differences that exist only where it is probable that taxable profits will be generated against which the carrying value of the deferred tax asset can be recovered.

Deferred tax liabilities are recognised for all taxable temporary differences except in respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint operations where the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

A deferred tax asset or liability is not recognised if a temporary difference arises on initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss. However, where the recognition of an asset is associated with an interest in a joint operation, which applies to all Cairn's intangible exploration/appraisal asset and property, plant & equipment – development/producing asset additions, and Cairn is not able to control the timing of the reversal of the temporary difference or the temporary difference is expected to reverse in the foreseeable future, a deferred tax asset or liability shall be recognised.

Current and deferred tax is calculated using tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

## Section 5 – Taxation continued

### 5.1 Tax Strategy and Governance

The Group's tax strategy is fully aligned with its overarching business objectives and principles. In its approach to tax Cairn aims to be a good corporate citizen, managing its tax affairs in a transparent and responsible manner in all the jurisdictions in which it operates. Cairn is committed to having open and constructive relationships with all tax authorities.

For the past several years, the Group's UK activities have been focused on assets at exploration, appraisal and development stages with no production; but from 2017, receipt of production income recommenced. Due to the level of costs incurred in developing the fields which came on-stream in 2017, there are no taxable profits in 2018 and it is unlikely that any taxable profits will be realised for several years. Taxable profits in other jurisdictions, where Cairn's assets are at various stages of the value creation cycle, are also minimal and as a result there were no cash payments of corporation taxes made during the year (2017: US\$nil).

Cairn undertakes tax planning that supports the business and reflects commercial and economic activity. The Group's policy is to not enter into any artificial tax avoidance schemes but to build and maintain strong collaborative working relationships with all relevant tax authorities based on transparency and integrity. The Group aims for certainty in relation to the tax treatment of all items; however, it is acknowledged that this will not always be possible, for example where transactions are complex or there is a lack of maturity in the tax regime in the relevant jurisdiction in which the Group is operating. In such circumstances Cairn will seek external advice where appropriate and ensure that the approach adopted in any relevant tax return includes full disclosure of the position taken.

### 5.2 Tax (Credit)/Charge on (Loss)/Profit for the Year

#### Analysis of tax (credit)/charge on (loss)/profit for the year

	2018 US\$m	2017 (restated) US\$m
<b>Current tax:</b>		
Norwegian tax refunds receivable	(35.5)	(39.9)
	(35.5)	(39.9)
<b>Deferred tax (credit)/charge:</b>		
Norwegian deferred tax (credit)/charge	(5.6)	9.0
Deferred tax on valuation of financial assets at fair value through profit or loss	(89.4)	96.5
Deferred tax liability on recognition of financial assets at fair value through profit or loss	–	(7.1)
Release of provision on carried interests due to change in tax rate	–	(0.7)
UK deferred tax credits realised	–	(2.8)
<b>Total deferred tax (credit)/charge</b>	<b>(95.0)</b>	<b>94.9</b>
<b>Total tax (credit)/charge on (loss)/profit</b>	<b>(130.5)</b>	<b>55.0</b>

The tax charge for 2017 has been restated following the adoption of IFRS 9 (see note 1.3) which has resulted in tax previously included in Other Comprehensive Income now included in the tax charge in the Income Statement.

The Norwegian deferred tax (credit)/charge includes a charge of US\$4.4m (2017: charge of US\$12.4m) on temporary differences in respect of non-current assets and a credit of US\$10.0m (2017: credit of US\$3.4m) on losses and other temporary differences.

Deferred tax movements through the Income Statement on the recognition and valuation of financial assets represent the deferred tax impact of movements in the year in respect of the shares that the Group holds in Vedanta Limited (Cairn India Limited prior to April 2017) detailed in note 3.1. The credit on the valuation of financial assets of US\$89.4m results in a closing deferred tax liability of US\$nil (2017: US\$89.4m) relating to the financial assets held at 31 December 2018.



5.2 Tax (Credit)/Charge on (Loss)/Profit for the Year continued

Factors affecting tax (credit)/charge for the year

A reconciliation of the income tax (credit)/charge applicable to the (loss)/profit before income tax to the UK statutory rate of income tax is as follows:

	2018 US\$m	2017 (restated) US\$m
(Loss)/Profit before taxation	(1,266.0)	272.8
(Loss)/Profit before tax multiplied by the UK statutory rate of corporation tax of 19% (2017: 19.25%)	(240.5)	52.5
Effect of:		
Special tax rates and reliefs applying to oil and gas activities	(62.9)	(50.3)
Temporary differences not recognised	46.8	40.8
Disposal of financial assets held at fair value through profit or loss	135.5	-
Impact of exceptional provision against finance income	-	20.1
Other	(9.4)	(8.1)
Total tax (credit)/charge on (loss)/profit	(130.5)	55.0

The reconciliation shown above has been based on the average UK statutory rate of corporation tax for 2018 of 19% (2017: 19.25%).

The UK main rate of corporation tax is currently 19% (20% prior to 1 April 2017).

The applicable UK statutory tax rate applying to North Sea oil and gas activities is 40% (2017: 40%).

The applicable Norwegian rate applying to oil and gas activities is 78% (2017: 78%).

The effect of special tax rates and reliefs applying to oil and gas activities of US\$62.9m (2017: US\$50.3m) comprises US\$52.0m (2017: US\$38.1m) in respect of differences between the average UK statutory rate and the special rates applying to oil and gas activities in the UK & Norway, US\$9.5m (2017: US\$12.2m) in respect of the UK ring fence expenditure supplement ('RFES') claimed in the year, and US\$1.4m (2017: US\$nil) in respect of the uplift in Norway on capital development expenditure

The effect of temporary differences not recognised of US\$46.8m (2017: US\$40.8m) includes:

- a US\$58.7m (2017: US\$28.3m) movement in the year in respect of the unrecognised deferred tax asset on UK ring fence trading losses and the deferred tax liability on UK Ring Fence temporary differences in respect of non-current assets; and
- a US\$2.4m (2017: US\$(3.4)m) movement in respect of the carry forward of, or the use in the year of brought forward UK non-trading losses on which no deferred tax asset was recognised.

These are offset by

- a US\$11.6m (2017: US\$(5.8)m) movement in the unrecognised deferred tax asset brought forward at the start of the year in respect of the shares that the Group held in Vedanta Limited (previously Cairn India Limited); and
- a US\$2.7m (2017: US\$(10.1)m) movement in respect of unsuccessful exploration costs on which future tax relief is available but the expenditure has been expensed through the Income Statement.

5.3 Income Tax Asset

The income tax asset of US\$32.8m (2017: US\$38.4m) relates to cash tax refunds due from the Norwegian authorities on the tax value of exploration and other qualifying expenses incurred in Norway during the year. This refund will be received in 2019.

During 2018, a cash tax refund of US\$36.8m (2017: US\$30.4m) was received on prior year qualifying expenditure on exploration activities, new venture costs and administrative expenses. US\$20.4m (2017: US\$2.8m) of the refund is allocated against operating activities in the Cash Flow Statement where it relates to pre-award and administrative costs and the remaining US\$16.4m (2017: US\$27.6m) included as a refund in investing activities where it relates to costs initially capitalised within intangible assets – exploration/appraisal assets.

## Section 5 – Taxation continued

### 5.4 Deferred Tax Assets and Liabilities

#### Reconciliation of movement in deferred tax assets/(liabilities):

	Temporary difference in respect of non-current assets US\$m	Losses US\$m	Other temporary differences US\$m	Total US\$m
<b>Deferred tax assets</b>				
At 1 January 2017	(205.6)	205.6	–	–
Exchange differences arising	(27.5)	27.5	–	–
Deferred tax credit through the Income Statement	(112.4)	115.9	–	3.5
Deferred tax movement on additions to development assets in respect of carried interests	(3.5)	–	–	(3.5)
At 31 December 2017	(349.0)	349.0	–	–
Deferred tax credit through the Income Statement	105.9	(105.9)	–	–
<b>At 31 December 2018</b>	<b>(243.1)</b>	<b>243.1</b>	<b>–</b>	<b>–</b>
<b>Deferred tax liabilities</b>				
At 1 January 2017	(74.3)	11.6	–	(62.7)
Exchange differences arising	(3.9)	0.6	–	(3.3)
Deferred tax charge through the Income Statement (restated)	(101.7)	3.1	0.2	(98.4)
At 31 December 2017	(179.9)	15.3	0.2	<b>(164.4)</b>
Exchange differences arising	5.1	(1.9)	(0.3)	<b>2.9</b>
Deferred tax credit through the Income Statement	85.0	8.5	15	<b>95.0</b>
<b>At 31 December 2018</b>	<b>(89.8)</b>	<b>21.9</b>	<b>1.4</b>	<b>(66.5)</b>
				31 December 2018 US\$m
				31 December 2017 US\$m
<b>Deferred tax liabilities analysed by country</b>				
India			–	(89.4)
Norway			<b>(66.5)</b>	(75.0)
<b>Total deferred tax liability</b>			<b>(66.5)</b>	(164.4)

There is an unrecognised deferred tax asset of US\$0.9m at the year end in respect of the shares the Group holds in Vedanta Limited as a result of the disposal/redemption of part of the shares, combined with the fall in the share price. In 2017 there was a deferred tax liability in respect of the shares of US\$89.4m.

#### Recognised deferred tax assets

As at the balance sheet date, no net deferred tax asset or liability has been recognised in the UK (2017: no net deferred tax asset or liability recognised) as other temporary differences and tax losses are only recognised to the extent that they offset the UK deferred tax liability arising on business combinations and carried interests attributable to UK Ring-Fence trading activity, as it is not considered probable that future profits will be available to recover the value of the asset given the detrimental change in market conditions continuing to impact the oil and gas industry.

A deferred tax asset has been recognised in respect of Norwegian tax losses of US\$21.9m (2017: US\$15.3m) against a Norwegian deferred tax liability arising from business combinations and expenditure on assets for which current tax refunds have been claimed.

5.4 Deferred Tax Assets and Liabilities continued

Unrecognised deferred tax assets

No deferred tax asset has been recognised on the following as it is not considered probable that it will be utilised in future periods:

	31 December 2018 US\$m	31 December 2017 US\$m
UK fixed asset temporary differences	383.2	386.5
UK Ring Fence Corporation Tax trading losses	118.0	138.0
UK Supplementary Charge Tax trading losses	855.9	138.0
UK other Ring Fence temporary differences	117.8	116.9
UK non-Ring-Fence trading losses	3.7	3.7
UK non-Ring-Fence pre-trade losses	2.9	3.3
UK excess management expenses	318.7	66.3
UK non-trade deficits	52.7	297.7
UK temporary differences on share-based payments	10.6	33.9
UK other temporary differences	0.1	0.1
Senegal fixed asset temporary differences	5.3	3.2
Temporary differences on financial assets held at fair value through profit or loss	0.9	–
Greenlandic tax losses	1,088.3	1,143.1

The applicable UK statutory tax rate applying to North Sea oil and gas activities of 40% is made up of Ring Fence Corporation Tax (RFCT) of 30% and Supplementary Charge Tax (SCT) of 10%. At the balance sheet date the Group has US\$928.3m RFCT losses which can be offset against RFCT of 30% on future Ring Fence trading profits and US\$855.9m SCT losses which can be offset against SCT of 10% on future Ring Fence trading profits.

In 2017 the Group had US\$1,010.5m of both RFCT and SCT losses carried forward to offset against RFCT and SCT on future Ring Fence trading profits.

A deferred tax asset has been recognised in respect of US\$810.3m of the RFCT losses and none of the SCT losses, offsetting in full a deferred tax liability on Ring Fence temporary differences in respect of non-current assets. No deferred tax asset has been recognised on RFCT losses of US\$118.0m, any of the SCT losses of US\$855.9m, or on other ring fence temporary differences of US\$117.8m (2017: US\$116.9m) relating to decommissioning liabilities as it is not considered probable that these amounts will be utilised in future periods.

In 2017 a deferred tax asset was recognised in respect of US\$872.5m of both RFCT and SCT losses, offsetting in full the deferred tax liability on Ring Fence temporary differences in respect of non-current assets. No deferred tax asset was recognised in 2017 on the remaining RFCT and SCT losses of US\$138.0m.

The deferred tax liability recognised on UK Ring Fence fixed asset temporary differences of US\$243.1m (2017: US\$349.0m) includes temporary differences in respect of investment allowances (previously field allowances) of US\$759.5m (2017: US\$759.5m) on the Catcher and Kraken developments which will reduce future Ring Fence profits subject to supplementary charge.

## Section 5 – Taxation continued

### 5.5 Contingent Liability – Indian Tax Assessment

In January 2014 Cairn UK Holdings Limited ('CUHL'), a direct subsidiary of Cairn Energy PLC, received notification from the IITD that it was restricted from selling its shareholding in Cairn India Limited ('CIL'); at that time the shareholding was approximately 10% and had a market valuation of INR 60bn (US\$1.0bn). In that notification, the IITD claimed to have identified unassessed taxable income resulting from certain intra-group share transfers undertaken in 2006 (the '2006 Transactions'), such transactions having been undertaken in order to facilitate the IPO of CIL in 2007. The notification made reference to retrospective Indian tax legislation enacted in 2012, which the IITD was seeking to apply to the 2006 Transactions. Following the merger in April 2017 of CIL and Vedanta Limited, CUHL's shareholding in CIL was replaced by a shareholding of approximately 5% in Vedanta Limited issued together with preference shares.

In addition to attaching CUHL's shares in Vedanta Limited, the IITD seized dividends due to CUHL from those shareholdings totalling INR 11.4bn (US\$164.2m). The IITD has also notified Cairn that a tax refund of INR 15.9bn (US\$249.0m) due to CUHL as a result of overpayment of capital gains tax on a separate matter in 2011, has been applied as partial payment of the tax assessment of the 2006 Transactions. This tax refund was previously classified in Cairn's accounts as a contingent asset where the inflow of economic benefits was considered less than probable.

The IITD holds CUHL as an assessee in default in respect of tax demanded on the 2006 transactions, and as such has pursued enforcement against CUHL's assets in India. To date these enforcement actions have included attachment of CUHL's shareholding in Vedanta Limited and sale of 181,764,297 shares and seizure of the proceeds, seizure of the proceeds from the redemption of the preference shares, seizure of the US\$164.2m dividends due to CUHL as described above, and offset of a US\$249.0m tax refund due to CUHL in respect of another matter. To date 99% of CUHL's shareholding has been liquidated by the IITD (see note 3.1).

The assessment by the IITD of principal tax due on the 2006 Transactions is INR 102bn (US\$1.6bn), plus applicable interest and penalties. Interest is currently being charged on the principal at a rate of 12% per annum from February 2017, although this is potentially subject to the IITD's Indian court appeal that interest should be back-dated to 2007. Penalties are currently assessed as 100% of the principal tax due, although this is subject to appeal by CUHL that penalties should not be charged given the retrospective nature of the tax levied.

The Group has legal advice confirming that the maximum amount that could ultimately be recovered from Cairn by the IITD, in excess of the assets already seized, is limited to the value of CUHL's assets, principally the remaining ordinary shares in Vedanta Limited.

In March 2015 Cairn filed a Notice of Dispute under the UK-India Bilateral Investment Treaty (the 'Treaty') in order to protect its legal position and seek restitution of the value effectively seized by the IITD in and since January 2014. Cairn's principal claims are that the assurance of fair and equitable treatment and protections against expropriation afforded by the Treaty have been breached by the actions of the IITD, which is seeking to apply retrospective taxes to historical transactions already closely scrutinised and approved by the Government of India. The IITD has attached and seized assets to try to enforce such taxation. Cairn's plea is therefore that the effects of the tax assessment should be nullified and that Cairn should receive recompense from India for the loss of value resulting from the 2014 attachment of CUHL's shares in CIL and the withholding of the tax refund, which together total approximately US\$1.4bn.

The Treaty proceedings formally commenced in January 2016 following agreement between Cairn and the Republic of India on the appointment of a panel of three international arbitrators under the terms of the Treaty. Cairn's statement of claim was submitted to the arbitral tribunal in June 2016 and the Republic of India submitted its statement of defence in February 2017. Further submissions and document production took place in 2017 and 2018. The main evidentiary hearing of Cairn's claim under the Treaty took place in August 2018 in The Hague with a final hearing in December 2018. All formal hearings and submissions have now been made and the tribunal is in the process of drafting its award.

Based on detailed legal advice, Cairn remains confident that it will be successful in this arbitration and accordingly no provision has been made for any of the tax or penalties assessed by the IITD.

Section 6 – Capital Structure and Other Disclosures

This section includes details of Cairn's issued share capital and equity reserves.

Other disclosures include details on auditor's remuneration. Details on the Group's policy on the award of non-audit work to the auditor can be found in the Report of the Audit Committee.

**Significant accounting judgements in this section:**  
There are no significant accounting judgements in this section.

**Key estimates and assumptions in this section:**  
There are no key estimates or assumptions in this section.

6.1 Issued Capital and Reserves

Called-up share capital

	Number 231/169p ordinary '000	231/169p ordinary US\$m
<b>Allotted, issued and fully paid ordinary shares</b>		
At 1 January 2017	577,236	12.4
Issued and allotted to ESOP trust	6,000	0.1
At 31 December 2017	583,236	12.5
Issued and allotted to ESOP trust	5,650	0.1
Issued and allotted for employee share options	616	–
At 31 December 2018	589,502	12.6

Share premium

	2018 US\$m	2017 US\$m
At 1 January	488.0	488.0
Arising on shares issued for employee share options	1.7	–
At 31 December	489.7	488.0

a) Shares held by ESOP Trust

The cost of shares held by the ESOP Trust at 31 December 2018 was US\$11.7m (2017: US\$1.9m). The number of shares held by the Trust at 31 December 2018 was 6,744,138 (2017: 2,704,555) and the market value of these shares was £10.1m/US\$12.9m (2017: £5.8m/US\$7.8m).

In anticipation of future vestings forecast under the Group's share-based payment schemes, during the year the Group purchased 4,322,325 (2017: 1,450,000) shares on market at a cost of US\$13.6m (2017: US\$3.9m). In addition 5,650,000 (2017: 6,000,000) new shares were allotted to the ESOP Trust. In 2018 5,532,742 (2017: 5,016,359) shares vested and 400,000 (2017: 400,000) shares were transferred from the ESOP Trust to the SIP trust.

b) Shares held by SIP Trust

The cost of shares held by the SIP Trust at 31 December 2018 was US\$7.9m (2017: US\$8.3m). The number of shares held by the Trust at 31 December 2018 was 2,195,930 (2017: 1,923,089) and the market value of these shares was £3.3m/US\$4.2m (2017: £4.1m/US\$5.6m).

c) Foreign currency translation

Unrealised foreign exchange gains and losses arising on consolidation of non-US\$ functional currency subsidiary undertakings are taken directly to reserves. Foreign exchange differences arising on intra-group loans are not eliminated on consolidation; this reflects the exposure to currency fluctuations where the subsidiaries involved have differing functional currencies. These intra-group loans are not considered to be an investment in a foreign operation.

d) Merger and capital reserves

The merger reserve of US\$255.9m arose in 2012 on shares issued by Cairn on the acquisition of Capricorn Norge AS. Capital reserves – non-distributable of US\$40.8m, of which US\$0.7m relates to Cairn Energy PLC, the Company, include non-distributable amounts arising on various Group acquisitions and the capital redemption reserve arising from the 2013/2014 share buy-back programme.

e) Hedge reserve

The hedge reserve at 31 December 2018 of US\$41.0m (2017 restated: US\$(2.9)m) has arisen on commodity price hedging, see note 3.6 for full details. The hedge reserve is used to recognise the effective portion of gains or losses on the derivatives that are designated for, and qualify as, cash flow hedges.



## Section 6 – Capital Structure and Other Disclosures continued

### 6.2 Capital Management

The objective of the Group's capital management structure is to ensure that there remains sufficient liquidity within the Group to carry out committed work programme requirements. The Group monitors the long-term cash flow requirements of the business in order to assess the requirement for changes to the capital structure to meet that objective and to maintain flexibility. The Group is subject to quarterly forecast liquidity tests as part of the RBL facility. The Group has complied with the capital requirements of this test at all times during the year.

Cairn manages the capital structure and makes adjustments to it in light of changes to economic conditions. To maintain or adjust the capital structure, Cairn may buy back shares, make a special dividend payment to shareholders, return capital, issue new shares for cash, repay debt, put in place new debt facilities (see note 3.3) or undertake other such restructuring activities as appropriate. No significant changes were made in the objectives, policies or processes during the year ended 31 December 2018.

Capital and net debt, including finance lease liabilities, was as follows:

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Continuing operations</b>		
Loans and borrowings	101.7	29.8
Finance lease liability	165.4	169.7
Less cash and cash equivalents	(66.3)	(86.5)
Net debt	200.8	113.0
Equity	1,390.1	2,494.5
Capital and net funds less payables	1,590.9	2,607.5
Gearing ratio	13%	4%

### 6.3 Guarantees

It is normal practice for the Group to issue guarantees in respect of obligations during the normal course of business.

Details of the Group's RBL facility can be found in note 3.3. On entering into the facility certain subsidiaries granted cross-guarantees to each of the lenders.

The Group also provided the following guarantees at 31 December 2018:

- Various guarantees under the borrowing facility for the Group's operational commitments for the current year of US\$49.5m (2017: US\$48.5m)
- Parent Company Guarantees for the Group's obligations under joint operating agreements and other contracts.

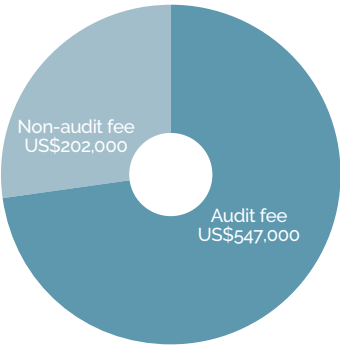
6.4 Auditor’s Remuneration

	2018 US\$'000	2017 US\$'000
<b>Fees payable to the Group’s external auditor (including associate firms) for:</b>		
<i>Audit fees:</i>		
Auditing of the Financial Statements of the Group and the Company	315	290
Auditing of the Financial Statements of subsidiaries	232	208
	547	498
<i>Non-audit fees:</i>		
Audit-related assurance services	60	120
Other assurance services relating to corporate finance transactions	134	103
Non-audit services not included above	8	105
	202	328
<b>Total fees</b>	<b>749</b>	<b>826</b>

The Group has a policy in place for the award of non-audit work to the auditor which requires audit committee approval (see the Audit Committee Report on pages 80 to 84).

The split of audit fees to non-audit fees payable to the auditor is as follows:

2018 Fees to Auditor



2017 Fees to Auditor



## Company Balance Sheet

### As at 31 December 2018

	Note	2018 US\$m	2017 US\$m
<b>Non-current assets</b>			
Derivative financial instruments	74	7.7	–
Investments in subsidiaries	77	2,521.8	2,812.0
		<b>2,529.5</b>	2,812.0
<b>Current assets</b>			
Cash and cash equivalents	72	6.3	0.6
Other receivables	73	7.3	18.5
Derivative financial instruments	74	36.7	14
		<b>50.3</b>	20.5
<b>Total assets</b>		<b>2,579.8</b>	2,832.5
<b>Current liabilities</b>			
Derivative financial instruments	74	36.7	14
Trade and other payables	75	88.1	67.7
		<b>124.8</b>	69.1
<b>Non-current liabilities</b>			
Derivative financial instruments	74	7.7	–
		<b>132.5</b>	69.1
<b>Total liabilities</b>		<b>132.5</b>	69.1
<b>Net assets</b>		<b>2,447.3</b>	2,763.4
<b>Equity</b>			
Called-up share capital	61	12.6	12.5
Share premium	61	489.7	488.0
Shares held by ESOP/SIP Trusts	61a,b	(19.6)	(10.2)
Capital reserves – non-distributable	61d	0.7	0.7
Merger reserve	61d	255.9	255.9
Retained earnings:			
At 1 January		2,016.5	2,007.9
Loss for the year		(318.9)	(4.9)
Other movements in retained earnings		10.4	13.5
		<b>1,708.0</b>	2,016.5
<b>Total equity</b>		<b>2,447.3</b>	2,763.4

The Financial Statements on pages 170 to 177 were approved by the Board of Directors on 11 March 2019 and signed on its behalf by:



**James Smith**  
Chief Financial Officer



**Simon Thomson**  
Chief Executive

Company Statement of Cash Flows  
For the year ended 31 December 2018

	Note	2018 US\$m	2017 US\$m
<b>Cash flows from operating activities</b>			
Loss before taxation		(318.9)	(4.9)
Share-based payments charge		5.2	5.9
Impairment of investment in subsidiary	77	299.7	-
Finance income		(2.9)	(112)
Finance costs		7.2	7.7
Other receivables movement	73	(3.9)	(2.3)
Trade and other payables movement	75	20.4	6.4
<b>Net cash generated from operating activities</b>		<b>6.8</b>	<b>16</b>
<b>Cash flows from investing activities</b>			
Interest received		2.8	8.0
<b>Net cash flows from investing activities</b>		<b>2.8</b>	<b>8.0</b>
<b>Cash flows from financing activities</b>			
Facility fees, arrangement fees and bank charges		(7.1)	(4.7)
Facility fees reimbursed by subsidiary undertaking	73	15.1	-
Cost of shares purchased	61a	(13.6)	(3.9)
Proceeds from exercise of share options		1.7	-
<b>Net cash flows used in financing activities</b>		<b>(3.9)</b>	<b>(8.6)</b>
Net increase in cash and cash equivalents		5.7	10
Opening cash and cash equivalents at beginning of year		0.6	(0.4)
<b>Closing cash and cash equivalents</b>	72	<b>6.3</b>	<b>0.6</b>

## Company Statement of Changes in Equity

### For the year ended 31 December 2018

	Equity share capital and share premium US\$m	Shares held by ESOP/SIP Trusts US\$m	Merger and capital reserves US\$m	Retained earnings US\$m	Total equity US\$m
At 1 January 2017	500.4	(10.2)	256.6	2,007.9	2,754.7
Loss for the year	–	–	–	(4.9)	(4.9)
Total comprehensive expense	–	–	–	(4.9)	(4.9)
Share-based payments	–	–	–	175	175
Shares issued for cash	0.1	(0.1)	–	–	–
Exercise of employee share options	–	(3.9)	–	–	(3.9)
Cost of shares vesting	–	4.0	–	(4.0)	–
At 31 December 2017	500.5	(10.2)	256.6	2,016.5	2,763.4
Loss for the year	–	–	–	(318.9)	(318.9)
Total comprehensive expense	–	–	–	(318.9)	(318.9)
Share-based payments	–	–	–	14.7	14.7
Shares issued for cash	0.1	(0.1)	–	–	–
Cost of shares purchased	–	(13.6)	–	–	(13.6)
Exercise of employee share awards	1.7	–	–	–	1.7
Cost of shares vesting	–	4.3	–	(4.3)	–
<b>At 31 December 2018</b>	<b>502.3</b>	<b>(19.6)</b>	<b>256.6</b>	<b>1,708.0</b>	<b>2,447.3</b>



Section 7 – Notes to the Company Financial Statements

This section contains the notes to the Company Financial Statements.

The issued capital and reserves of the Company are largely consistent with Cairn Energy PLC Group Financial Statements. Refer to note 6.1 of the Group Financial Statements.

Key estimates and assumptions in this section:  
Impairment testing of investments in subsidiaries

The Company's investment in Capricorn Oil Limited has been tested for impairment by comparison against the underlying value of exploration/ appraisal and development/producing assets, held within the Capricorn Oil sub-group, based on fair value less costs of disposal. The fair values are calculated using the same assumptions as noted in section 2.

7.1 Basis of Preparation

The Financial Statements have been prepared in accordance with IFRS as adopted by the EU.

The Company applies accounting policies consistent with those applied by the Group. To the extent that an accounting policy is relevant to both Group and Company Financial Statements, refer to the Group Financial Statements for disclosure of the accounting policy. Material policies that apply to the Company only are included as appropriate.

Cairn has used the exemption granted under s408 of the Companies Act 2006 that allows for the non-disclosure of the Income Statement of the Parent company.

The net assets in the Company Balance Sheet remain in excess of the Group's total net assets as a result of historic impairment tests. The Group Balance Sheet reflects past impairments charged against UK & Norway exploration assets included in past business combinations. The Company's direct investment in subsidiaries have not suffered the same impairment as the fall in value of the UK & Norway assets is offset by the increase in the value of Senegal assets.

7.2 Cash and Cash Equivalents

	31 December 2018 US\$m	31 December 2017 US\$m
Cash at bank	6.3	0.6
	6.3	0.6

7.3 Other Receivables

	31 December 2018 US\$m	31 December 2017 US\$m
Prepayments	0.3	15.3
Amounts receivable from subsidiary undertakings	2.5	11
Other receivables	4.5	2.1
	7.3	18.5

Following the draw-down on the RBL facility in 2018, facility fees of US\$15.1m held in prepayments at 31 December 2017, were recharged to the subsidiary entity drawing on the facility. The reimbursement of costs by the subsidiary is disclosed in the Cash Flow Statement.

7.4 Derivative Financial Instruments

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Non-current assets</b>		
Financial assets – hedge options maturing after more than one year	7.7	–
<b>Current assets</b>		
Financial assets – hedge options maturing within one year	36.7	14
<b>Current liabilities</b>		
Financial liabilities – hedge options maturing within one year	(36.7)	(14)
<b>Non-current liabilities</b>		
Financial liabilities – hedge options maturing after more than one year	(7.7)	–
	–	–

Mark-to-market gains and losses on oil price options are recorded as financial assets and liabilities at 31 December 2018. Cairn Energy PLC enters into option contracts with third-parties and back-to-back contracts with a subsidiary on the same date, with the same terms. Therefore there are equal financial assets and liabilities. Details of Group hedging can be found in note 3.6.

## Section 7 – Notes to the Company Financial Statements continued

### 7.5 Trade and Other Payables

	31 December 2018 US\$m	31 December 2017 US\$m
Trade and other payables	0.2	0.2
Amounts payable to subsidiary undertakings	83.2	64.3
Accruals	4.7	3.2
	<b>88.1</b>	<b>67.7</b>

### 7.6 Financial Instruments

Set out below is the comparison by category of carrying amounts and fair values of all the Company's financial instruments that are carried in the Financial Statements.

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Financial assets: carrying amount and fair value</b>		
<i>Financial assets at amortised cost</i>		
Cash and cash equivalents	6.3	0.6
Amounts receivable from subsidiary undertakings	2.5	1.1
Other receivables	4.5	2.1
<i>Derivative financial instruments</i>		
Financial assets – hedge options	44.4	14
	<b>57.7</b>	<b>5.2</b>

All of the above financial assets are current and unimpaired, other than those relating to hedge options which extend into 2020 (2017: all less than one year). Due to the short-term nature of the financial assets held at amortised cost, their carrying amount is considered to be the same as the fair value.

	31 December 2018 US\$m	31 December 2017 US\$m
<b>Financial liabilities: carrying amount and fair value</b>		
<i>Financial liabilities at amortised cost</i>		
Trade and other payables	0.2	0.2
Accruals	4.7	3.2
Amounts payable to subsidiary undertakings	83.2	64.3
<i>Derivative financial instruments</i>		
Financial liabilities – hedge options	44.4	14
	<b>132.5</b>	<b>69.1</b>

The fair value of financial assets and liabilities, other than those relating to hedge options, has been calculated by discounting the expected future cash flows at prevailing interest rates. Hedge options are valued using models with observable inputs.

#### Maturity analysis

All of the Company's financial liabilities have a maturity of less than one year other than hedge options which extend into 2020 (2017: all less than one year).

#### Financial risk management: risk and objectives

The Company's financial risk management policies and objectives are consistent with those of the Group detailed in note 3.10.

The Company is not exposed to material foreign currency exchange rate risk.

7.7 Investments in Subsidiaries

Accounting policy

The Company's investments in subsidiaries are carried at cost less provisions resulting from impairment. In testing for impairment the carrying value of the investment is compared to its recoverable amount, being its fair value less costs of disposal. The fair value is based on the discounted future net cash flows of oil and gas assets held by the subsidiary, using estimated cash flow projections over the licence period. For exploration assets, estimated discounted cash flows are risk-weighted for future exploration success.

Discounted future net cash flows are calculated using an estimated short-term oil price based on the forward curve and long-term oil price of US\$70 per boe (2017: long-term oil price of US\$70 per boe), escalation for prices and costs of 2.0% (2017: 2.0%) and a discount rate of 10% (2017: 10%). Full details on the assumptions used for valuing oil and gas assets can be found in section 2.

	Subsidiary undertakings US\$m	Total US\$m
<b>Cost</b>		
At 1 January 2017	3,664.8	3,664.8
Additions	11.6	11.6
At 31 December 2017	3,676.4	3,676.4
Additions	9.5	9.5
<b>At 31 December 2018</b>	<b>3,685.9</b>	<b>3,685.9</b>
<b>Impairment</b>		
At 1 January and 31 December 2017	864.4	864.4
Impairment charge	299.7	299.7
<b>At 31 December 2018</b>	<b>1,164.1</b>	<b>1,164.1</b>
<b>Net book value</b>		
At 31 December 2016	2,800.4	2,800.4
At 31 December 2017	2,812.0	2,812.0
<b>At 31 December 2018</b>	<b>2,521.8</b>	<b>2,521.8</b>

Additions during the year of US\$9.5m (2017: US\$11.6m) relate to the Company's investment in Capricorn Oil Limited. These represent the award of share options of the Company to the employees of Capricorn Energy Limited (a principal subsidiary of Capricorn Oil Limited).

At the year end, investments in subsidiaries were reviewed for indicators of impairment and impairment tests conducted where indicators were identified. Following this review, the Company's investment in Capricorn Oil Limited was impaired to reflect the fair value of the underlying assets of the Capricorn Oil Group. A charge of US\$299.7m was made to the Income Statement in 2018 (2017: US\$nil). The fall in the value of the underlying assets of the Capricorn Oil Group reflects a fall in the value of UK producing assets and revised economic workings for the planned development of the Senegal exploration/appraisal asset.

## Section 7 – Notes to the Company Financial Statements continued

### 7.7 Investments in Subsidiaries continued

The Company's subsidiaries as at the balance sheet date are set out below. The Company holds 100% of the voting rights and beneficial interests in the ordinary shares of the following companies:

#### Direct holdings

	Business	Country of incorporation	Country of operation	Registered office address
Capricorn Oil Limited	Holding company	Scotland	Scotland	50 Lothian Road, Edinburgh, EH3 9BY
Cairn UK Holdings Limited	Holding company	Scotland	Scotland	50 Lothian Road, Edinburgh, EH3 9BY

#### Indirect holdings – Capricorn Oil Limited Group

	Business	Country of incorporation	Country of operation	Registered office address
Agora Oil and Gas (UK) Limited	Exploration	Scotland	UK	50 Lothian Road, Edinburgh, EH3 9BY
Alba Resources Limited	Exploration	Scotland	UK	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Americas Limited	Holding company	Scotland	Scotland	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Americas Mexico S. de R.L. de C.V.	Exploration	Mexico	Mexico	Torre Mayor, Av. Paseo de la Reforma 505, Cuauhtémoc, CP 06500, CDMX, México
Capricorn Brasil Petróleo e Gás Ltda	Exploration	Brazil	Brazil	Praia de Botafogo 228, 16th floor, suite 1601 Zip Code 22250-040 Rio de Janeiro, Brazil
Capricorn Côte d'Ivoire Onshore Limited	Exploration	Scotland	Côte d'Ivoire	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Energy Limited	Holding company	Scotland	Scotland	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Energy Mexico S. de R.L. de C.V.	Exploration	Mexico	Mexico	Av. Paseo de la Reforma 295, Cuauhtémoc, CP 06500, CDMX, México
Capricorn Energy Search Limited	Exploration	Scotland	Scotland	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Exploration and Development Company Limited	Exploration	Scotland	Morocco	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Exploration Limited	Non-trading	Scotland	Non-trading	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Ghana Limited	Exploration	Scotland	Non-trading	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Greenland Exploration 1 Limited <sup>+</sup>	Holding company	Scotland	Scotland	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Greenland Exploration A/S	Exploration	Greenland	Greenland	Qullilerfik 2, 6, Box 1718, 3900 Nuuk, Greenland
Capricorn Ireland Limited	Exploration	Scotland	Republic of Ireland	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Malta Limited	Exploration	Scotland	Malta	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Mauritania Limited	Exploration	Scotland	Mauritania	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Nicaragua BV	Exploration	The Netherlands	Non-trading	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Norge AS	Exploration and development	Norway	Norway	Jåttåvågveien 7, 4020 Stavanger, Norway
Capricorn Oil and Gas Tunisia GmbH	Non-trading	Switzerland	Non-trading	Gubelstrasse 5, Postfach 1524, CH-6301 Zug, Switzerland
Capricorn Petroleum Limited	Holding company	Scotland	Scotland	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Resources Management Limited	Royalty interest	Scotland	Mongolia	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Senegal Limited	Exploration	Scotland	Senegal	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Spain Limited	Exploration	Scotland	Spain	50 Lothian Road, Edinburgh, EH3 9BY
Capricorn Suriname BV	Exploration	The Netherlands	Suriname	50 Lothian Road, Edinburgh, EH3 9BY
Nautical Holdings Limited <sup>+</sup>	Holding company	England	UK	Wellington House 4th Floor, 125 The Strand, London, WC2R 0AP
Nautical Italia SRL <sup>^</sup>	Non-trading	Italy	Italy	Piazza Pietro Merolli n. 2, 00151 Roma, Italy
Nautical Petroleum AG	Production	Switzerland	UK	Baarerstrasse 8, 6300 Zug, Switzerland
Nautical Petroleum Limited	Exploration and Production	England	UK	Wellington House 4th Floor, 125 The Strand, London, WC2R 0AP
Transunion Petroleum Italia SRL <sup>^</sup>	Non-trading	Italy	Italy	Piazza Pietro Merolli n. 2, 00151 Roma, Italy
UAH Limited <sup>+</sup>	Holding company	England	UK	Wellington House 4th Floor, 125 The Strand, London, WC2R 0AP

<sup>+</sup> Exempt from audit under Section 480 of the Companies Act

<sup>^</sup> Company is in the process of liquidation

7.8 Capital Management

Capital and net debt were made up as follows:

	31 December 2018 US\$m	31 December 2017 US\$m
Amounts payable to subsidiary undertakings	83.2	64.3
Less cash and cash equivalents	(6.3)	(0.6)
Net debt	76.9	63.7
Equity	2,447.3	2,763.4
Capital and net debt	2,524.2	2,827.1
Gearing ratio	3%	2%

7.9 Related Party Transactions

The Company's subsidiaries are listed in note 7.7. The following table provides the Company's balances which are outstanding with subsidiary companies at the balance sheet date:

	31 December 2018 US\$m	31 December 2017 US\$m
Amounts payable to subsidiary undertakings	(83.2)	(64.3)
Amounts receivable from subsidiary undertakings	2.5	11
	(80.7)	(63.2)

The amounts outstanding are unsecured and repayable on demand and will be settled in cash.

The following table provides the Company's transactions with subsidiary companies recorded in the loss for the year:

	2018 US\$m	2017 US\$m
Amounts invoiced to subsidiaries	37.2	14.0
Amounts invoiced by subsidiaries	5.8	4.7

Directors' remuneration

The remuneration of the Directors of the Company is set out below. Further information about the remuneration of individual Directors is provided in the audited part of the Directors' Remuneration Report on pages 87 to 113.

	2018 US\$m	2017 US\$m
Emoluments	3.4	3.4
Share-based payments	2.4	3.6
	5.8	7.0

Pension contributions were made on behalf of Directors in 2018 of US\$0.2m (2017: US\$0.2m).

820,131 LTIP share awards to Directors vested during 2018 (2017: 1,438,565). Share-based payments shown above represent the market value at the vesting date of these awards.

Other transactions

During the year the Company did not make any purchases in the ordinary course of business from an entity under common control (2017: US\$nil).



Licence List  
As at 31 December 2018

Country	Asset name	Licence	Block(s)	Operator	Cairn interest (%)
Republic of Ireland					
Republic of Ireland	SPANISH POINT	FEL 2/04	35/8, 35/9	CAPRICORN IRELAND	38
Republic of Ireland	DRUID DROMBEG	FEL 2/14	52/5, 52/10, 52/15, 53/1, 53/6, 53/11	TOTAL E&P IRELAND	30
Republic of Ireland	16/18	LO 16/18	34/29, 34/30, 35/26, 43/4, 43/5, 44/1	CAPRICORN IRELAND	100
Republic of Ireland	16/19	LO 16/19	44/6	CAPRICORN IRELAND	70
Latin America					
Mexico	BLOCK 7	CNH-R02-L01-A7, 7 CS-2017		ENI	30
Mexico	BLOCK 9	CNH-R02-L01-A9, 9 CS-2017		CAPRICORN ENERGY MEXICO	65
Mexico	BLOCK 15	CNH-R03-L01-G- 15 TMV-01-2018		CAPRICORN ENERGY MEXICO	50
Suriname	BLOCK 61	BLOCK 61	61	CAPRICORN SURINAME B.V.	100
Senegal					
Senegal	RUFISQUE OFFSHORE, SANGOMAR OFFSHORE, SANGOMAR DEEP OFFSHORE	SANGOMAR- RUFISQUE	N/A	Woodside Pet Ltd (35%)	40
UK and Norway					
UK	KRAKEN	P1077	9/2b	Enquest Heather Ltd (70.5%)	29.5
UK	CATCHER	P1430	28/9a	Premier Oil UK Ltd (50%)	20
UK	AGAR-PLANTAIN	P1763	9/9d, 9/14a	Apache Beryl Ltd (50%)	25
UK	LAVERDA	P2070	28/4a	Premier Oil UK Ltd (54%)	36
UK	CHIMERA	P2312	3/16a, 3/17a	Nautical Petroleum	60*
UK	WOODSTOCK	P2379	22/11b, 22/12b, 22/16b, 22/17c	Nautical Petroleum	40
UK	MANHATTAN	P2381	22/13c, 22/18d	Nautical Petroleum	40
UK	PEPPERMINT	P2393	28/10a	Nautical Petroleum	60
UK	BONNEVILLE	P2453	28/9c	PMO UK Ltd (50%)	20
UK	LAVERDA TEMPLATE	P2454	28/9d	PMO UK Ltd (54%)	36
Norway	TERAKO UPDIP	PL248J	Part of 35/11	Capricorn Norge AS (60%)	60
Norway	SKARFJELL SOUTH	PL378	35/12	Wintershall Norge AS (75.76%)	24.24
Norway	NOVA	PL418	35/8, 35/9	Wintershall Norge AS (35%)	20
Norway	TETHYS	PL682	35/9	Spirit Energy AS (30%)	30
Norway	INCA	PL722	7322/6, 7323/4	Equinor Energy AS (45%)	15
Norway	OFTENASEN	PL748	34/2, 34/5	Aker BP ASA (50%)	20
Norway	OFTENASEN EXTENSION	PL748B	34/5	Aker BP ASA (50%)	20
Norway	LYNGHAUG	PL758	6508/1, 6608/10, 6608/11	Capricorn Norge AS (50%)	50
Norway	RAUDASEN	PL790	34/2, 34/5	Aker BP ASA (30%)	25
Norway	GRANNES	PL800	6508/1, 6508/2	Capricorn Norge AS (50%)	50
Norway	HAVHEST	PL828	36/4	Equinor Energy AS (50%)	40
Norway	DOMPAP	PL840	6608/7, 6608/8	Equinor Energy AS (40%)	20
Norway	GODALEN	PL842	6608/10, 6608/11, 6608/12	Capricorn Norge AS (40%)	40
Norway	BYHAUGEN	PL844	6609/5, 6609/6, 6609/8, 6609/9	INEOS E&P Norge AS (40%)	20
Norway	ROSSI	PL853	7322/9	Lundin Norway AS (60%)	40
Norway	FLIPPER	PL854	7322/3, 7323/1	Equinor Energy AS (40%)	40
Norway	HENG	PL875	29/9, 30/7	Suncor Energy Norge AS (60%)	40
Norway	HENG EXTENSION	PL875B		Suncor Energy Norge AS (60%)	40
Norway	SEIL	PL877	30/3, 31/1,4,5	Capricorn Norge AS (60%)	60
Norway	DUNCAN	PL880	35/8	Capricorn Norge AS (60%)	60
Norway	AGAT	PL884	35/3	Wellesley Petroleum AS (40%)	30
Norway	STJERNESKUDD	PL885	35/3, 36/1	Equinor Energy AS (30%)	30
Norway	CAMEL	PL927	35/7, 35/10	Wintershall Norge AS (50%)	50
Norway	SATURN EXTENSION	PL928		Spirit Energy AS (50%)	50
Norway	SUNSTONE	PL943	6507/1, 6507/2, 6607/10, 6607/11, 6607/12	Equinor Energy AS (40%)	30

\* Subject to regulatory approval following farm-down.

Group Reserves and Resources  
As at 31 December 2018

Net 2P reserves

	Reserves year end 2017 mmboe	Net 2018 production mmboe	Revisions year end 2018 mmboe	Reserves year end 2018 mmboe
UK	53.8	(6.4)	(6.4)	41.1
Norway	–	–	15.2	15.2
<b>Total</b>	<b>53.8</b>	<b>(6.4)</b>	<b>8.8</b>	<b>56.3</b>

Net 2C resources

	Resources year end 2017 mmboe	Net 2018 production mmboe	Revisions year end 2018 mmboe	Resources year end 2018 mmboe
Senegal	190.8	–	(4.5)	186.3
UK	3.0	–	(0.5)	2.5
Norway	21.3	–	(21.3)	–
<b>Total</b>	<b>215.1</b>	<b>–</b>	<b>(26.3)</b>	<b>188.8</b>

For more information please see Operational Review on page 28.

Glossary

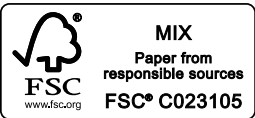
The following are the main terms and abbreviations used in this report:

1P	Proved reserves, denotes low estimate scenario
2P	Proved plus probable reserves, denotes best estimate scenario
3P	Proved plus probable plus possible reserves, denotes high estimate scenario
1C	Denotes low estimate scenario of contingent resources
2C	Denotes best estimate scenario of contingent resources
3C	Denotes high estimate scenario of contingent resources
P90	Value with a 90% probability of being equal or exceeded, high degree of certainty
P50	Value with a 50% probability of being equal or exceeded, medium degree of certainty
P10	Value with a 10% probability of being equal or exceeded, low degree of certainty
3Rs	Cairn core values: Respect, Relationships and Responsibility
ABC	anti bribery and corruption
AQI	Audit Quality Inspection
bbl	barrel
bbls	barrels
boe	barrels of oil equivalent
bopd	barrels of oil per day
boepd	barrels of oil equivalent per day
bps	basis points
bn	billion
BST	British Standard Time
Capex	capital expenditure
CDS	credit default swap
CEO	Chief Executive Officer
CERT	Crisis and Emergency Response Team
CFO	Chief Financial Officer
CIL	Cairn India Limited
COO	Chief Operating Officer
COP21	2015 Paris Climate Conference
CR	corporate responsibility
CRMS	Corporate Responsibility Management System
CSL	Capricorn Senegal Limited
CSR	corporate social responsibility
CUHL	Cairn UK Holdings Limited
ERP	enterprise resource platform
EU	European Union
EY	Ernst & Young LLP
E&A	exploration and appraisal
ESIA	Environmental and Social Impact Assessment
ESOP	employee share option plan
EITI	Extractive Industries Transparency Initiative
FAN	FAN oil discovery, Senegal
FDP	field development plan
FEED	front end engineering design
FlowStream	FlowStream Thruer Ltd
FPSO	floating production storage and offloading facility
FRC	Financial Reporting Council
Ft	foot
G&G	geology and geophysics
GBP	Great British Pound
GHGs	greenhouse gases
GRI	Global Reporting Initiative
H1/2	first/second half (of a year)
HR	Human Resources
HRIA	human rights impact assessment

HSSE	health, safety, security and environment
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
IMT	Incident Management Team
INR	Indian rupee
IOGP	International Association of Oil and Gas Producers
IPIECA	International Petroleum Industry Environmental Conservation Association
IS	Information Systems
IASB	International Accounting Standards Board
IFC	International Finance Corporation
IIP	Investors in People
IITD	Indian Income Tax Department
IP	investment proposal
IPCC	intergovernmental panel on climate change conference
INDC	intended national determined contribution
IPO	initial public offering
ITT	invitation to tender
JV	joint venture
KPI	key performance indicator
LATAM	Latin America
LIBOR	London Interbank Offered Rate
LTIF	lost time injury frequency
LTIP	long term incentive plan
m	million
mmbbls	million barrels of oil
mmboe	million barrels of oil equivalent
mmbopd	million barrels of oil per day
MSA	Modern Slavery Act
MSG	multi stakeholder group
MT	Management Team
NIBOR	Norwegian Interbank Offered Rate
NOK	Norwegian Krone
opex	operating expenditure
OSPAR	Oslo/Paris convention (for the Protection of the Marine Environment of the North-East Atlantic)
PDP	project delivery process
PSC	Production Sharing Contract
PwC	PricewaterhouseCoopers LLP
PDMR	person discharging managerial responsibility
RBL	reserves based lending
RMC	Risk Management Committee
SDGs	United Nations sustainable development goals
SIP	share incentive plan
SNE	SNE development, Senegal
THP	The Hunger Project
TSR	total shareholder return
UK	United Kingdom
UKCS	United Kingdom continental shelf
UN	United Nations
UNGC	United Nations Global Compact
US\$	United States Dollar
WI	working interest
Woodside	Woodside Energy Ltd.
YE	year end
YTD	year to date

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